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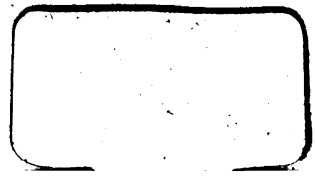

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MANUAL

OF

DISEASES OF THE SKIN

WITH

AN ANALYSIS OF TWENTY THOUSAND CONSECUTIVE CASES

AND

A FORMULARY

BY

L. DUNCAN BULKLEY, A.M., M.D.

PHYSICIAN TO THE NEW YORK SKIN AND CANCER HOSPITAL; DERMATOLOGIST TO THE RANDALL'S ISLAND HOSPITALS; CONSULTING PHYSICIAN TO THE NEW YORK HOSPITAL, HOSPITAL FOR RUPTURED AND CRIPPLED AND MANHATTAN EYE AND EAR HOSPITAL, ETC.

FOURTH EDITION
REVISED AND ENLARGED

G. P. PUTNAM'S SONS
NEW YORK AND LONDON
The Knickerbocker Press
1898

BOSTON MEDICAL
MAY 3 - 1917
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Fourth Edition
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The Knickerbocker Press, New York

TO

THE GOVERNORS

OF THE

NEW YORK HOSPITAL

WHOSE KIND APPRECIATION OF AND ASSISTANCE TO THE AUTHOR IN HIS CLINICAL WORK IN THEIR INSTITUTION HAVE DONE MUCH TO ENCOURAGE HIM AND TO PROMOTE THE INTEREST OF THE PROFESSION IN THE BRANCH OF

DERMATOLOGY

THIS LITTLE WORK IS INSCRIBED

PREFACE TO THE FOURTH EDITION

IN preparing a fourth edition of this manual the aim has been to retain its simple and elementary character, while attempting to make it as complete and compendious as possible. The work has been very thoroughly revised, and much of it rewritten, with the addition of a large amount of matter relating to many diseases not mentioned in former editions. While it is impossible to treat completely of all diseases in so small a compass, it is believed that sufficient reference has been made to their essential features, so that the work may be of practical value, both to the student in his first mastery of dermatology, and to the general practitioner who desires a small and convenient work of reference.

To this end, as in former editions, considerable attention has been paid to therapeutics, and, with the revised "formulary," it is believed that the book will be found of practical aid in the management of the diseases treated of in its pages.

The index has been made particularly full, both with a view of facilitating easy reference and to serve as a dictionary of synonyms and dermatological terms. A second index has also been provided, relating to differential diagnosis, for assistance in doubtful cases.

The writer is painfully conscious of the difficulties of presenting dermatology at all adequately in such a small compass, and realizes the shortcomings of the book. The large sales of former editions have, however, seemed to indicate that such a book was needed and desired, and it is again offered as an introduction to the study of dermatology. While this book is largely a personal one, the author wishes to acknowledge the free use made of the writings of others, especially in regard to the rarer forms of disease. While many books in many languages could be mentioned, there are none in any language that have been more serviceable than some in our own, both for accuracy and practical utility, and it is hoped that this manual may lead to the study of such excellent and classical works as those of Crocker, Duhring, and Hyde.

The author desires to express his indebtedness to his associate, Dr. H. H. Whitehouse, for valuable aid in preparing the manuscript and in passing the work through the press.

4 East 37th Street, New York.

PREFACE TO THE FIRST EDITION

THE following pages represent an attempt to present the subject of Diseases of the Skin concisely, and yet with sufficient details to be of practical value to the student and practitioner. They are offered as an introduction to the study of a branch which is of great importance, and yet which is not readily grasped, owing to many reasons, such as the large number and variety of affections of the skin, their difficulty of recognition, and the confused and unwieldy nomenclature often employed.

The present little work has been largely prepared for those following my clinics at the New York Hospital, and has indeed grown out of a Skin Pharmacopœia arranged for their use. The aim has been to make it thoroughly practical, and it partakes much of the style of class-room conversations upon the various diseases as they appear clinically. Pathology is introduced but briefly, and no attempt has been made to enter the literature of the subject, or to present or discuss doubtful questions. Differential diagnosis has not been fully entered on, for want of space, but in connection with each eruption mention is made of those with which it may be con-

founded. In order to present the relative frequency and importance of different affections in the briefest space possible, a chapter is devoted to the analysis of eight thousand skin cases.

The nomenclature and classification employed correspond in the main to those used by many; the nomenclature being Latin, and the diseases being mostly grouped on a pathological basis. In this, as in other matters, the desire has been not to present new or startling features, but to harmonize, as far as possible, the views of dermatologists in various countries. It is hoped that the very complete index will be of much service.

The matter of therapeutics has been dwelt on more largely than might be expected in a small "manual"; it is hoped, however, that this, with the "formulary," may be of a practical value to the practitioner, while they serve as a guide to the student in becoming acquainted with remedies. While this portion represents to a certain degree the treatment recommended by others, the actual application of remedies refers rather to their employment in my own practice.

Acknowledgment is here made of aid derived from the writings of Hebra, Kaposi, Neumann, Duhring, Piffard, Wilson, Tilbury Fox, Anderson, Hardy, and others, to the study of whose works it is hoped that the present manual may be a further incitement.

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MANUAL

OF

DISEASES OF THE SKIN

CHAPTER I

ON THE STUDY OF DERMATOLOGY

DERMATOLOGY seems to many a difficult and uninviting field of study, and the great number of diseases described, together with the somewhat confusing nomenclature and classification often employed, have served to repel rather than attract practical medical men. But with advancing knowledge many of the former difficulties have been cleared away, and there is really no reason why all who enter the profession should not acquire a fair knowledge concerning the diseases which affect the skin. There are indeed many reasons why accuracy should be cultivated in this rather than in many other departments of medicine; and it may be fairly said that he who understands diseases of the skin rightly is better fitted for general practice, than he who is master of any other one specialty.

Dermatology is an especially inviting field for many reasons: First, because all the lesions of disease are exposed to view, and pathological changes can be studied on the skin as nowhere else in the body. Here inflammation and its processes and products can be watched while taking place; hypertrophy and atrophy occur here in their fullest extent; and these, with new formations, constitute the richest field of pathological research, both in their gross features and in their histological elements. And finally the study of vegetable parasites and microorganisms as they affect the integument, has led to researches and advances in other fields of pathology.

But, again, dermatology is inviting because there is no branch of medicine, surgery not excepted, where accuracy of diagnosis can be obtained more surely and in a larger percentage of cases than in that of diseases of the skin. In no class of affections, moreover, are the results of treatment so plainly visible; the ill effects of wrong measures are at once seen, and the benefits from proper treatment are no less apparent, to both the patient and physician.

The study of dermatology, therefore, is not to be underrated because so many of the diseases coming under its domain do not endanger life, and are found in those in apparently excellent health. For not only can disorders, which may appear to be insignificant, cause much distress to those affected, but not a few of the diseases of the integument are very im-

portant from their bearing upon the general health and usefulness both of the sufferer and of others. As illustrations of this last assertion may be mentioned the relations of certain diseases of the skin to the gouty state, of which they are often precursory signs; likewise, the enormously important relations of syphilis and leprosy, both to the patient and others; also, the parasitic affections, which may sometimes spread through an entire school or community from carelessness. It must further be remembered that many diseases not always reckoned as belonging to the province of dermatology, such as smallpox, scarlet fever, measles, erysipelas, and others, exhibit skin phenomena which may at times be difficult of diagnosis, and may be closely simulated by quite different affections of the skin.

The relations of dermatology, therefore, to the practice of general medicine are most intimate and important, and a clear understanding of this branch is essential for general success. The close observation and the appreciation of minute features which are necessary for the study of diseases of the skin, are also elements in medical practice, the cultivation of which cannot be too strongly insisted upon; while the effect of remedies, external and internal, which can be clearly observed in the treatment of these diseases, teaches much in regard to the therapeutics of diseases of other organs.

The error has often occurred of isolating dermatol-

ogy too much from the ordinary practice of medicine, and of regarding it as a department quite separate, and one difficult to understand and grasp; whereas, in point of fact, this branch cannot be understood and practised in the best manner except by those thoroughly acquainted, theoretically and practically, with medicine as a whole. Skin diseases are not separate and distinct affairs, having relations and conditions quite different from those affecting other portions of the body; they have the same pathological laws and must be studied and treated on the same principles as diseases of other organs. They depend largely upon the same class of causes, and many of them resemble other maladies very closely; almost all of them have relations reaching further than the skin itself. With this view or thought in mind, we will briefly enter upon the study of the subject, in as simple and practical a manner as possible.

CHAPTER II

ANATOMY AND PHYSIOLOGY OF THE SKIN

THE skin is the largest, and in some respects the most important emunctory organ of the body, and upon a proper performance of its functions depend, to a great extent, the health and well-being of the individual. While its apparent purpose is merely as an outer investment, for the object of giving shape and symmetry to the human form, and of enabling it to resist external agencies which would injure or destroy more delicate structures, it has also functions of its own to perform which are most important. It furnishes the means of exhaling a large proportion of the fluid given off from the body, and is the chief means for maintaining animal heat at an equable point.

To fulfil its many duties, the skin is composed of a number of different elements, all united in a harmonious texture; it contains excretory glands and organs of sensation, and has, as appendages, the hair and nails, all to serve definite purposes. In certain localities it undergoes changes in structure according to the necessities of the case; thus on the palms, soles, and buttocks it is thick and resisting; while

it is thin and delicate on the eyelids, penis, and certain other regions. On the scalp, face, and elsewhere it produces hairs, which are but modifications of its epithelial elements; and on the ends of the fingers and toes, another variation in epidermal development gives rise to the nails. At the orifices of the body, as at the nose, mouth, urethra, vulva, and anus, its anatomy is altered to conform to the requirements of the parts, and the mucous membranes result, which are indeed but altered skin, whose diseases are often closely allied to or connected with those of the outward integument.

The skin is composed in the main of two layers, quite different in their structure and composition. The lower or deeper one is called the *corium*, *cutis vera*, *true skin*, or *derma*, and the outer one is named the *epidermis* (Greek, *epi*, upon, and *derma*, skin).

The *derma* or *corium*, the inner or deeper portion, which constitutes the leather of commerce, is composed of densely interwoven connective-tissue fibres, firm and elastic, which interlace and form a texture resembling felt. At the deepest part of this corium, or true skin, the fibres are separated, and between them are found masses of fat globules, constituting the *panniculus adiposus*, or adipose tissue; in the outer portion the fibres are closely matted together, and the surface externally rises into minute prominences, called the papillæ of the skin, this portion having the name of the papillary layer, or *pars papillaris*.

The *epidermis*, cuticle, or scarf skin, has no fibres, but is composed of separate elements called cells. The deeper cells are more or less rounded or many-sided, and succulent, having minute processes or prickles, by which they are united together (*prickle cells*), and compose what is known as the *rete mucosum* or *rete Malpighii;* this rests directly upon the papillæ, and dips down into the interstices between them. In the cells of this deepest layer is found the pigment or coloring matter of the skin, normally in the colored races and in certain regions of the white body, as about the areolæ of the breasts and elsewhere; it also occurs in this layer pathologically in certain diseased states, hence the difficulty of removing pigmentary deposits in the skin. The outer layers of cells of the epidermis are more horny, and as they approach the exterior they become more and more flattened, hardened, and lifeless, only waiting to be thrown off or removed by friction.

The epidermis is exceedingly important pathologically, in connection with very many diseases of the skin.

The *corium*, or true skin, contains a number of elements which demand closer consideration. These are (1) blood-vessels, (2) nerves, (3) lymphatics, (4) muscular fibres, (5) hair follicles, (6) sebaceous glands, (7) sweat glands, and (8) nails.

The *blood and nerve supply* of the skin is exceedingly abundant, and is of the utmost importance in

its relations to its diseases. Its very great richness in these elements may be judged from the fact, that even a fine needle cannot be introduced into the skin without drawing blood and causing pain. The *blood-vessels* coming from below anastomose very freely in the skin and rise into the papillæ.

The *nerves of the skin* serve the purposes of presiding over its nutrition, of providing general sensation which shall protect the parts from injury, and of furnishing the sense of touch. In the main the larger nerves are confined to the corium, but nerve elements have been also traced beyond the true skin, even among the cells of the rete Malpighii; also in the sheaths of the hair follicles and in the sebaceous glands. Within the papillæ are found what is known as the *tactile corpuscles;* these consist of a mass of nucleated cells, mingled with connective tissue, into which the medullated nerve fibre is seen to run and apparently to terminate. It is thought that in them lies the sense of touch. The nerves which preside over nutrition, the *trophic nerves*, have not yet been demonstrated, and very little is also known with regard to the *vaso-motor nerves* in the skin; but that both these are exceedingly important in their relations to skin diseases cannot be doubted, from the structural changes, the functional glandular derangements, and also the congestion and inflammation which occur so readily in the integument.

The *lymphatics* of the skin are very numerous, and

are of importance in connection with its pathology. They have been recently demonstrated to be very abundant, both throughout the corium, and as lymph spaces between the cells of the epidermis, and also in connection with the sebaceous and sweat glands and the hair follicles. As yet we know little of their real relations to many diseases of the skin, although in certain affections, as elephantiasis, morphœa, lymphangioma, erysipelas, and others, they play an important part. We see the lymphatic element exhibited in the multiple adenopathy of syphilis; also in the buboes connected with chancroids, and the milder glandular swellings accompanying prurigo and inflammatory conditions on the lower extremities; likewise in the enlarged glands in the back of the neck in pustular eczema and other diseases of the scalp.

Muscular fibres exist in the skin in two forms or conditions. First, there is a small amount of smooth, un-striped, muscular tissue running horizontally, which is more developed in certain localities than in others. In some animals there is a considerable amount of striated or voluntary muscular fibre throughout the entire skin, whereby they are able to move it to a slight degree, and thus to assist in shaking off dust, insects, etc.; the dartos of the scrotum somewhat resembles this structure, but here the movements are almost, if not quite, entirely involuntary, and these frequently interfere materially

with the treatment of eczema in this region. The greatest development of the muscular fibre in the skin of man is found in the *arrectores pilorum*, which can be better described later on, in connection with the sebaceous glands and hair follicles.

Hair and *hair follicles.*—The relations of the hair follicles to the integument can be best understood by imagining the lower or fibrous portion of the skin to be soft and plastic, and the upper or epidermal layers to be pushed down into it without breaking, around a penetrating hair; the sheaths of the hair are thus seen to be cellular, and to a certain extent to correspond to the layers in the epidermis. Quite a number of separate layers of cells have been made out and described, but the practical point to be remembered is, that they are cellular, reaching down into and forming the lining of a pocket in the fibrous structure of the corium; this will be found to be of importance in reference to the vegetable parasitic diseases. At the bottom of the hair follicle thus formed, which in the case of larger hairs extends through the extreme thickness of the skin, the fibrous elements of the corium rise and form what is known as the *hair papilla*, from which the hair takes its growth. This contains blood-vessels and extends up into, and is embraced by, the lower portion of the hair. The hair itself is composed, like the epidermis, of cells; at its deepest portion, within the follicle, these cells are seen to be quite round or

polygonal, and are soft and succulent like those of the rete Malpighii. Those further outward are more flat and compressed, until finally all the cells are so flattened and condensed together that they appear like fibres, and these constitute the entire length of the hair, however great.

Hairs exist over almost every portion of the surface of the body, with a few exceptions, as on the palms and soles, the internal surface of the prepuce, and the glans penis, though in some situations they are so fine as to be hardly discernible with the naked eye. The number of the hairs is exceedingly great, varying vastly in different individuals. Between seven and eight hundred have been counted on a square inch, and the total number on the scalp has been estimated at between ninety- and one hundred and twenty thousand. Hair is very strong, and yet very elastic; a single hair has supported a weight of over two ounces, although such strength is undoubtedly exceptional; repeated instances have occurred where the scalp has been torn from the head by means of the hair, so firmly is it attached, and yet in disease it may fall with the slightest touch or break with the gentlest traction. Hair is so very elastic that it may stretch almost one third of its length, and regain its former dimensions.

Sebaceous or *sebiparous glands.*—These are irregularly shaped masses of glandular structure, belonging to the variety known as racemose glands, and with

a single excretory duct; they are almost invariably connected with hairs of some size. Upon hairy parts, as the scalp, they form appendages to the hairs, and discharge their secretion into the hair follicles. Generally there are two to each hair, situated on opposite sides; but in some situations large hairs may have a number, even from four to eight, situated around them, forming a sort of collar about the hair. In other places, where the hairs are fine and rudimentary, the sebaceous glands are relatively large, and the tiny hair appears there as an appendage to a comparatively large gland. All the sebaceous glands, however, are very minute affairs, and mostly situated in the outer portion of the corium. The secretion from these glands is of an oily nature, and, when in a healthy condition, is perfectly fluid at the temperature of the body. The quantity of the secretion is not very great in health, and its main function appears to be to keep the skin and hairs in a flexible state; although the amount of solid matter thrown off thus must be of some importance in the economy. When these glands fail to act, we have a dry, harsh condition of the skin, known as *xeroderma;* and when the secretion becomes blocked, it forms *comedo*, both of which will be treated of in connection with acne. Sometimes the secretion is great, and appears as an oily coating on the skin; or it may dry, forming coarse scales or greasy crusts, representing *seborrhœa* or acne sebacea. Neither of

these conditions, in which the secretion is so apparent, represents the normal state of the sebaceous material.

The *muscles* of the skin, previously alluded to as connected with the hair follicles and sebaceous glands, the *arrectores pilorum*, play a part which it is important to understand. These are attached to the lowest portion of the hair follicle, and, running diagonally, are inserted in the upper portion of the corium; they thus embrace the sebaceous glands connected with the hairs, so that each time they contract, pressure is made upon the glands, and their contents more or less forced out. On those portions of the body, such as the face, back, and chest, where the sebaceous glands are very large and the hairs very insignificant, the glands lose this aid to the expulsion of their secretion and very readily become clogged, thus furnishing one of the reasons for the prevalence of acne upon these parts. When these muscles contract under the influence of cold or mental emotions, the surface presents minute transitory elevations, *cutis anserina*, or "goose skin"; this may be produced at will on entering a bath, by allowing the exposed surface to become a little chilled, while dry, whereupon the hairs are seen to become erected, especially on the arms.

Sudoriparous or *sweat glands.*—These are in the form of minute tubes, which are coiled up in the deepest portion of the corium, or even in the sub-

cutaneous adipose tissue; their excretory ducts extend through the entire thickness of the skin, and after making several spiral turns within the epidermal portion, open directly upon the outer surface. These glands are very numerous in some portions; on the sole of the foot and palm of the hand there are about 2700 in the square inch; on the legs there are about 550 in the same space, and on the forehead about 1250. According to careful computation their total number amounts to over 2,000,000; the total length of all these minute tubes when uncoiled has been variously estimated at from two to eight miles.

The action of these little glands is not intermittent but continuous, and sweat is incessantly exhaled in the form of vapor or *insensible perspiration.* It is only when the body becomes much heated, as by exercise or otherwise, or in disease, that the perspiration manifests itself to the eye or touch. The total quantity of the fluid exhaled by the skin is subject to the greatest variations, according to temperature, moisture, exercise, quantity and quality of food and drink taken, etc. The average person in health gives off through the skin ordinarily between one and two pints or pounds of fluid daily, a quantity almost equal to that excreted by the kidneys. When animals are completely covered with an impermeable coating, as by varnishing the surface, death always takes place; and the story is

current among physiologists, that a child who was covered with gold leaf in order to represent an angel in the ceremonies attending the coronation of Pope Leo X., died a few hours after the coating had been applied.

Nails.—The nails resemble the hairs very closely in many respects, and are but altered portions of the epidermis. We speak of the root and the body of the nail, the *root* being that portion toward the trunk, and situated beneath the skin. The *body of the nail*, which represents the section of the hair within the follicle, is the remaining attached portion, while the free extremity of the nail, which custom and convenience remove frequently, corresponds to the free extremity of the hair. The *matrix*, or nail bed, is that upon which the nail rests, and to which it is firmly attached. Nails grow from their roots just as do the hairs, and only slide over their matrix or bed, so that injuries to the matrix need not cause a disfigured nail, other than of the portion directly injured, whereas injury or disease at its root will generally cause a destroyed or deformed nail.

PHYSIOLOGY OF THE SKIN

The physiology of the skin has intimate relations both to dermatology and to general medicine, which it is important to remember. As a great emunctory organ, it shares very largely with the lungs and kidneys the office of removing the superfluous water

from the system. The skin and kidneys each excrete somewhere between one and three pounds of liquid daily, while the lungs, perhaps not over one half or two thirds as much. It can be readily understood, therefore, how "a check of perspiration" can act harmfully by throwing extra work upon other organs. These three great agents for removing or eliminating water from the system act in harmony, and interchange their duties to a greater or less degree. Thus, in cold weather, when the skin perspires less, the kidneys are more active, as are also the lungs; in summer, again, when the perspiration may be profuse, it is a common observation to find the urine more scanty. This vicarious action of these organs is frequently taken advantage of in medicine, as when, in kidney disease, we cause the skin to act profusely and remove water which threatens dropsy; also in pneumonia, where power for work of the lungs is seriously impaired, the action of the skin is excited by moist heat. Again, in many diseases of the skin great advantage results from remedies which increase the action of the kidneys and bowels.

The results of physiological research show that very considerable impression may be made upon the general system by simply acting upon the skin, as by baths, the cold pack, etc.; advantage may also be taken of the absorbing power of the skin for the introduction of remedies through this channel, and nutrition also may be greatly affected by fatty in-

unctions. Failure or defect in the action of the kidneys, bowels, lungs, and liver, deranges the balance of the system, and may result in disease of any organ which has work thrown upon it which it cannot perform; we must believe, therefore, that the skin likewise may become diseased in the effort to produce its secretions from imperfectly elaborated blood, as also from attempting to obtain its nourishment from substances which have been insufficiently prepared in other portions of the economy.

The beneficial effects often observed in certain skin diseases from the use of mineral waters in bathing and drinking, must not be attributed to their action upon the diseased tissues alone. It is to be remembered that the whole skin, as an organ, is often affected favorably by the action of the waters, and so performs its work better, while the kidneys and bowels are also stimulated to action thereby, and so aid in the general improvement of the system. Even when used externally alone, other organs are more or less influenced by the mineral water, as it has been definitely shown that the urine can be affected, both in its liquid and solid elements, by means of baths and wet packs.

CHAPTER III

SYMPTOMATOLOGY

DISEASES and lesions of the skin should always receive very careful inspection and study in every possible manner, for, however simple the case may appear at first sight or in any of its elements, it is quite possible for various portions of the eruption to exhibit very different features. Unless, therefore, the disease is taken as a whole, and also unless it is understood in each and all of its parts, no perfectly correct diagnosis will be arrived at, and consequently no intelligent therapeusis.

The first consideration, therefore, has to do with the examination of the patient. This should always be made in a very general and complete manner; the practitioner should never be satisfied with inspecting only a portion of the eruption present, but must insist upon viewing the whole of the diseased surface, and it is also important to examine the neighboring healthy skin as well. It is, likewise, very necessary to observe and note carefully the *distribution* of the eruption, for, as will be developed elsewhere, different affections have especial seats of predilection, and different modes of development and arrangement of

their elements, which will often aid very considerably in the study of the case. As instances may be mentioned the proneness of eczema to affect the flexor surfaces; while psoriasis, ichthyosis, and lichen are found by preference upon the extensor surfaces of the body. In studying the distribution of the eruption it is also well to bear in mind the tendency which certain eruptions have for a particular form of distribution; thus, the inclination to circular arrangement of the lesions of syphilis, the disposition of the vesicles of zoster along the lines of nerve tracts, and the peculiar grouping of the vesicles of herpes febrilis and preputialis, are all very striking, while the rather symmetrical development of tinea versicolor, and the circular form and irregular location of patches of ringworm, are likewise characteristic.

It is important always to discover the *primary lesions* of an eruption, the form in which it makes its first appearance; for, although when well developed it may or may not have characters which are distinct, the earlier phases of its evolution will very generally point towards the proper diagnosis. The primary lesions or elements are generally discoverable near or outside the main line of eruption, if at all, although occasionally they will reappear very characteristically in portions already traversed by the disease. Sometimes the earliest stages are not present at the time, all of the lesions having passed into a more fully developed or retrograde state; but

the previous condition may then be generally learned by very accurate questioning.

In making the *diagnosis* of an eruption, there are two methods by which the end can be arrived at; these should be employed together, in order to attain any true accuracy. The first is by recognizing the actual characters or features of disease present, and their likeness to a well-known lesion or malady of the skin; the second is by exclusion, namely, by considering other eruptions which the one present might be mistaken for, and excluding each in turn, by the absence of some particular, distinctive feature belonging to it. As remarked before, both methods must be employed where the case is at all doubtful; indeed, until one is familiar with the subject, this process of mental logic should be associated with every case.

There is nothing really so very special or peculiar in the lesions which are found upon the skin, or in the diagnosis of the diseases which affect the integument. The pathological processes which occur here are precisely the same as those which take place in other portions of the body; namely, congestion, inflammation, the results of altered nutrition, as hypertrophy and atrophy, together with the development in the tissues of new formations, as cancer, etc.; these, together with the alterations caused by parasites, constitute the lesions which are found upon the skin. The variety of the changes produced

by these processes results in considerable confusion to one unaccustomed to look upon them; but a little careful observation will soon distinguish the elements of disease belonging to the various eruptions and processes, and by thus analyzing and separating the lesions found upon the skin a diagnosis can generally be made with certainty. True it is, that the gross features and grouping of elements seen in some skin diseases enable the practiced eye to make a probable diagnosis in many instances at first sight; but, as successful treatment depends absolutely upon accuracy of diagnosis, the greatest care should be exercised in determining this exactly, even with a considerable expenditure of time and patience.

Various agencies effect certain pathological changes in the skin structure, which have received the name of *lesions;* each of these exhibits to the eye, and often to the touch, features which are distinctive, and which, if recognized, establish with more or less of certainty the nature of the disease process present. *It is essential, therefore, to fix firmly in the mind the elemental lesions, and to connect them with the various diseases with which they are associated.*

We will first give a few brief definitions of the terms used to express the parts or elements of which eruptions are composed; these are spoken of as *primary lesions* and *secondary lesions*, the first the direct results of disease, the second a more or less consequent condition.

Of each of these there are eight, as follows:

A. Primary Lesions.	B. Secondary Lesions.
1. Macula; spot, macule.	1. Tinctura; stain.
2. Papula; papule.	2. Squama; scale.
3. Vesicula; vesicle.	3. Crusta; crust.
4. Bulla; bleb.	4. Infiltratio; infiltration.
5. Pustula; pustule.	5. Fissura; fissure.
6. Pomphus; wheal.	6. Excoriatio; excoriation.
7. Tuberculum; tubercle.	7. Ulcus; ulcer.
8. Phyma; tumor.	8. Cicatrix; scar.

A. PRIMARY LESIONS OF THE SKIN; these are eight in number, as follows: .

1. *Macula.* Spots, or macules, are of various sizes, colors, or shapes; generally neither elevated nor depressed. These may be congestive, hemorrhagic, pigmentary, or from extraneous causes.

Congestive maculæ are seen in *dermatitis, eczema erythematosum, erysipelas, erythema, leprosy, nævus vasculosus, pityriasis rosea, roseola, rötheln, rubeola, scarlatina,* and *syphilis;* hemorrhagic maculæ occur in *purpura, scorbutus,* and *insect bites;* pigmentary maculæ are found in *Addison's disease, chloasma, ephelis, leucoderma, melanoderma, morphœa, nævus pigmentosus, scleroderma, syphilis,* and *xanthoma:* maculæ from extraneous cause are seen in *nitrate of silver staining,* and from parasites in *tinea trichophytina* and *tinea versicolor.*

2. *Papula.* Papules, or pimples, are small solid elevations of the skin, inflammatory or neoplastic.

Inflammatory papules occur in *acne*, *dermatitis*, *eczema papulatum*, *lichen*, *phthiriasis*, *prurigo*, *purpura*, *scabies*, *syphilis*, *urticaria papulosa*, and *variola;* neoplastic papules are seen in *keratosis pilaris* and *lupus erythematosus.*

3. *Vesicula.* Vesicles, or small water-blisters, consist of slight elevations of the epidermis, with clear fluid contents.

Vesicles appear in *dermatitis*, *dysidrosis*, *eczema*, *herpes*, *scabies*, *sudamina*, *varicella*, *variola*, and *zoster.*

4. *Bulla.* Blebs, or larger water-blisters, are so called from their resemblance to bubbles on the surface of agitated water. Blebs may be of any size from that of a split pea upward.

Bullæ are observed in *dermatitis*, *erysipelas*, *hydroa*, *leprosy*, *pemphigus*, *pompholix*, *scabies*, and *syphilis infantile.*

5. *Pustula.* Pustules represent small, round elevations of the epidermis, containing pus.

Pustules are seen in *acne*, *dermatitis*, *ecthyma*, *eczema*, *equinia*, *furunculus*, *impetigo*, *impetigo contagiosa*, *phthiriasis*, *pustula maligna*, *scabies*, *sycosis*, *syphilis*, and *variola.*

6. *Pomphus;* a wheal. The flat, solid, slightly elevated lesions of urticaria or nettle rash are called wheals, or pomphi.

In addition to *urticaria*, wheals may also appear about the *bites of insects.*

7. *Tuberculum;* a tubercle. This term, which has no relation to tubercle of the lungs, refers to small, solid elevations of the skin, larger than papules.

Tubercles occur in *acne, carcinoma, clavus, epithelioma, fibroma, lepra, lupus, lymphangioma, rhinoscleroma, sarcoma, scrofuloderma, syphilis,* and *verruca.*

8. *Phyma;* a tumor. This is a large swelling in or upon the skin, and may be of any size above that of a tubercle. Generally masses larger than a cherry are spoken of as tumors.

The following diseases may present lesions classed as tumors: *carcinoma, dermatolysis, elephantiasis, fibroma, keloid, lepra, lipoma, molluscum, rhinoscleroma, sarcoma,* and *syphilis.*

B. SECONDARY LESIONS OF THE SKIN; these also are eight in number, as follows:

1. *Tinctura;* a stain. A discoloration of the skin more or less permanent, left after a preceding lesion.

Stains may remain for a varying period after all inflammatory affections; they are most commonly seen after *acne indurata, ecthyma, furunculus, lupus, phthiriasis, psoriasis,* and *purpura,* and after certain lesions of *syphilis* and *ulcus* they are apt to be permanent.

2. *Squama;* a scale. A portion of the epidermis more or less diseased and detached.

Scales occur in *dermatitis exfoliativa* and *herpetiformis, eczema, ichthyosis, lupus, pemphigus foliaceus, pityriasis, psoriasis, rubeola, scarlatina, syphilis, tinea favosa, tinea trichophytina*, and *tinea versicolor.*

3. *Crusta;* a crust. A dried mass, generally of pus and epidermis, the product of some disease of the skin.

Crusts follow inflammatory and destructive lesions; they are principally seen in *dermatitis, ecthyma, eczema, favus, furunculus, herpes, hydroa, impetigo, lepra, lupus, pemphigus, phthiriasis, scabies, scrofuloderma, sycosis, syphilis, vaccinia, variola*, and *zoster.*

4. *Infiltratio;* infiltration; a thickening and hardening of the skin from disease. In this the normal suppleness and elasticity are lost, and the skin readily breaks with each movement of the part.

Infiltration and hardening of integument is seen in *eczema, epithelioma, lepra, morphœa, rhinoscleroma, scleroderma*, and *ulcus.*

5. *Fissura;* a fissure, or crack in the skin, consequent upon previous infiltration.

Fissures, or rhagades, appear principally in connection with the infiltration occurring in *eczema, lepra, psoriasis*, and *syphilis.*

6. *Excoriatio;* excoriation and ulceration of the surface, generally caused by scratching.

Excoriations or scratch-marks are observed in connection with *eczema, phthiriasis, prurigo, scabies*, and *urticaria;* also in consequence of *bites of insects.*

7. *Ulcus;* an ulcer. An excavation in the skin made by disease. Ulcers generally extend deep into the true skin, and leave a scar.

Ulcers may occur in *anthrax, carcinoma, chancroid, dermatitis, ecthyma, eczema, epithelioma, equinia, furuncle, herpes preputialis, lepra, lupus, onychia, pustula maligna, sarcoma, scleroderma, scrofuloderma, syphilis,* and from *traumatic causes* and *varicose veins.*

8. *Cicatrix;* a scar. A new growth made up of hard, fibrous tissue, which replaces that lost by disease or injury.

Scars may follow ulcerative lesions in all the diseases just mentioned, and are also observed in *acne, atrophia cutis, favus, sycosis, vaccinia, varicella, variola,* and *zoster.*

All the lesions occurring on the skin will be found to be made up of these elements, sometimes of a single one alone, far more often of several combined. Especially do we continually find those belonging to the two classes intermingled, namely, *primary lesions* combined with their results, or *secondary lesions* of the skin, and the latter may be quite as characteristic of the disease as the former. Thus, the pearly, imbricated scales of psoriasis, and the yellowish, greasy scales of seborrhœa are both sufficiently pathognomonic. The crusts of impetiginous eczema and of syphilis, the scars of certain diseases, and the infiltration of eczema, all point clearly to

the affections to which they belong. In certain eruptions we see little except the secondary lesions, as in phthiriasis, where the scratch-marks or excoriations are almost pathognomonic; and in favus the entire external lesion is made up of crusts and scales. It will be observed that many diseases appear under several of these lesions, according to the variety or stage of the eruption.

To observe diseases of the skin satisfactorily, it is necessary that there should be good light; for this purpose daylight is almost essential, and plenty of it, preferably from a northern exposure. It is almost impossible to judge correctly of the color and character of skin lesions by artificial light.

A good lens, about two inches in diameter, is often of great assistance in bringing out clearly the separate features of an eruption. The microscope should always be used in doubtful cases of the vegetable parasitic eruptions, and may be of service in examining scales, crusts, and hairs; much has also been learned through the microscope in examining sections of diseased skin.

CHAPTER IV

ETIOLOGY

THE etiology of various diseases of the skin has always been a matter of considerable difference of opinion among writers, but the subject is being cleared up more and more under the light of modern science and accurate study, and many points are now placed beyond the reach of controversy. In former periods it was supposed that all cutaneous disorders were manifestations of an internal poison or evil, a *materies morbi*, seeking exit by this channel; hence the general name given to this class of affections was *eruptions* (from the Latin *e-rumpo*, I burst forth), as is also signified in the Greek term, *eczema* (from ἐκζέω, I boil over). This idea has by no means entirely disappeared, either from the public or professional mind; in few if any instances, however, is it correct.

Modern study has demonstrated the causes of diseases of the skin to be many and very varied. Thus, a certain number have been shown to be entirely due to the *local causes;* for instance, the effect upon the integument, or its appendages, of vegetable parasites which find a habitat there; certain other lesions of

the skin are wholly due to other local irritants, as the burrowing of the scabies insect, or the scratching practised for the relief of pediculi, or from other causes. Yet other conditions recognized as disease are the direct results of heat and cold, or mechanical injury, also chemical irritants, as dye-stuffs, poison ivy, etc.; another group of affections is known to be due to local alterations in the skin tissue, such as fibroma, epithelioma, keloid, and the like. Still other diseases have most intimate *internal relations*, such as acne, eczema, and urticaria; others, finally, as syphilis, leprosy, and the exanthemata, are the result of specific poisons.

It will be impossible, therefore, to enter here fully into the subject of the causation of individual diseases of the skin; the matter will be briefly referred to in connection with each malady. A few general considerations, however, may be of value.

While, as stated, some diseases are definitely due to a local cause, as a parasite, others to a specific poison, etc., there is a large number of diseases of the skin in regard to which the etiology is by no means fixed, and both internal and external causes, as also individual and family tendencies, are of importance in their production. These may be briefly alluded to.

1. *Internal causes.*—Food, which is wrong either in quantity or quality, is a frequent cause of skin disorder, as will be dwelt upon in the chapter on

diet and hygiene. Derangements of the internal organs, as indicated by dyspepsia, constipation, and urinary disturbance, likewise sexual disorders and nervous derangements, are frequently very closely connected with skin lesions; and the permanent cure of the latter often depends upon the successful relief of the former. Debility is likewise an important element to consider in this connection; also infancy, dentition, puberty, pregnancy, and the menopause have all relations to cutaneous maladies. The internal administration of some medicines, such as quinine, copaiba, and iodide and bromide of potassium, and other drugs, is sometimes followed by eruptions of peculiar nature.

2. *External causes.*—Parasites, animal and vegetable, heat and cold, chemical and vegetable poisons, and also mechanical irritation, as by friction, harsh underclothing, and above all by scratching, are fruitful causes of skin lesions, and must all be looked for. In some instances they are the sole efficient cause, and the eruption fades away when they are removed; in other cases they are but a single factor, and the real etiology is found in the internal or individual state. Thus, local agents may excite an eczema in one predisposed thereto; but the same irritation practised upon a dozen other individuals will excite but a temporary and transient inflammation of the skin. A local injury will often determine the location of a late lesion of syphilis.

3. *Individual and family tendencies.*—Some individuals are far more prone to have skin affections than others, even as the lungs or kidneys are more often affected in one person than in another; those with light complexion and hair are more inclined to skin diseases than those of darker hue. Again, families present the same peculiarity, and seem peculiarly liable to various diseases of the skin. Some affections are undoubtedly hereditary to a greater or less extent, such as syphilis, leprosy, cancer, and psoriasis, but in general the importance of hereditary influence is greatly overrated both by the laity and the profession; eczema sometimes appears to be inherited, but in reality this is rarely the case. The gouty, strumous, and nervous habits or states, whether hereditary or acquired, are of importance in connection with this subject.

Other elements to be taken into consideration as bearing upon etiology are the seasons, climate, occupation, age, and sex, as will be developed in later pages.

The influence of micro-organisms in producing disease of the skin will be referred to in subsequent pages. In regard to many eruptions the question must be considered as still *sub-judice*, so little being known as to the *soil*, or condition of the system favoring their action.

CHAPTER V

NOMENCLATURE AND CLASSIFICATION OF DISEASES OF THE SKIN

VERY much confusion, and, indeed, some of the difficulty attending the study of dermatology, have resulted from the number and variety of terms which have been applied to these diseases, by different authors. Many affections have received quite different names at various times and by different writers, and often the same designation has been given to diseases which are quite distinct from each other; not only has every author or teacher felt at liberty to coin new terms, or to propose changes, but in some instances they have not even faithfully adhered to one name, but have made repeated changes, both in those employed by themselves and others.

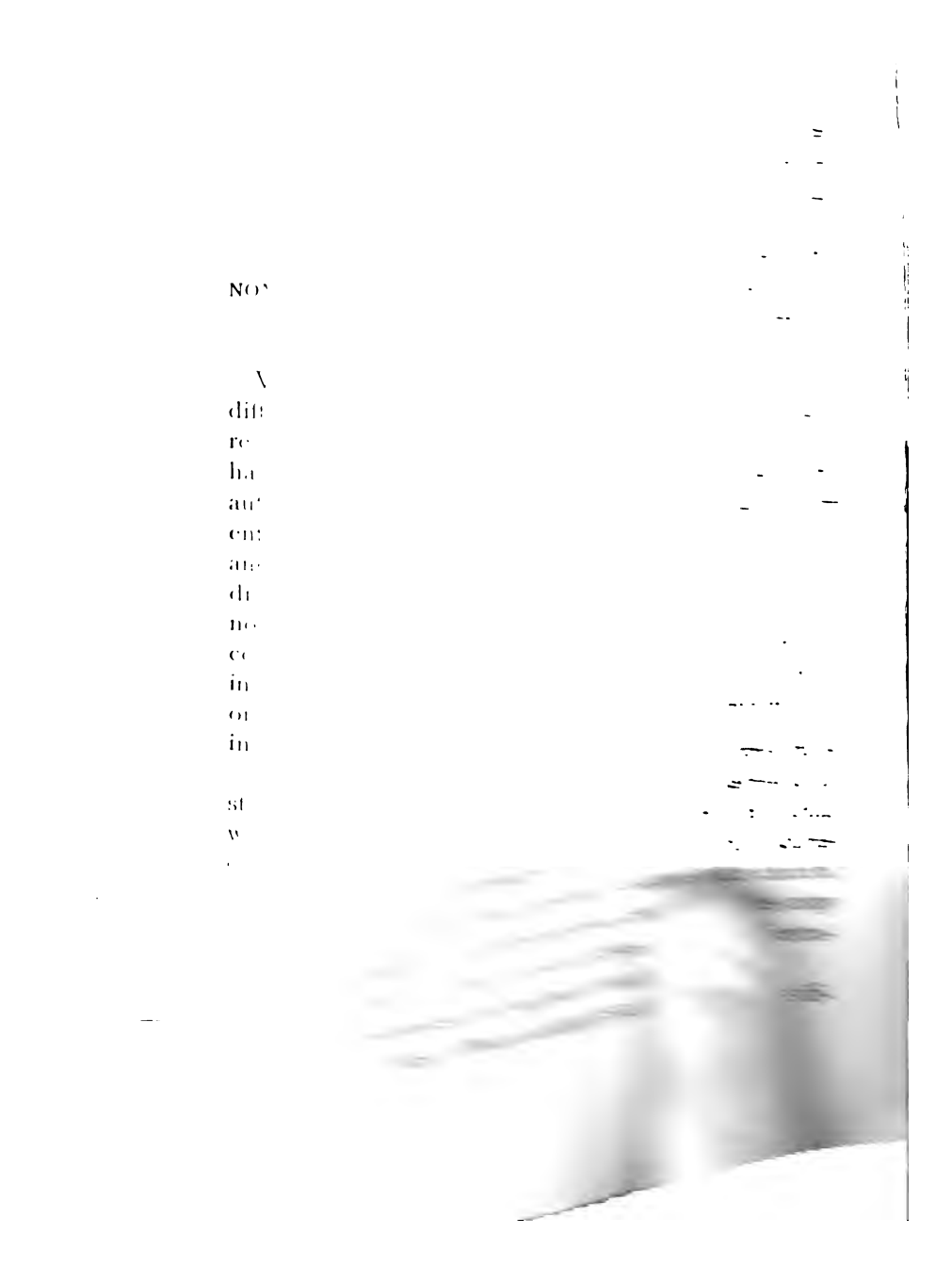
Happily at the present time this error of past study is appreciated by the majority of those who write and teach this branch, and the desire is becoming more and more fixed and manifest to use dermatological terms that are not only plain, but such as can be adhered to by those of every nation and school. Unfortunately, however, the number of those necessarily employed is, and must always

be, great, simply because of the large number and variety of the changes which can occur in the skin, and which are quite distinct from one another.

It would be useless to attempt to present the various views on nomenclature and classification which have been promulgated in times past, or even to mention the different names and systems which have been put forward, often only to last until the death of their producer, or not to find acceptance beyond his immediate circle. The dermatology of to-day looks back upon such wasted effort of the past, only to endeavor to avoid the repetition of such follies; and all who have this branch deeply at heart are seeking for unity of thought on this subject.

Inasmuch as different names may be given to different diseases in various countries, the Latin language has become more and more adopted for the expression of exact science; and in order that many of the names which have been used and known from antiquity may not be changed, the older Greek terms are retained as far as possible, while the Latin is further used for secondary names and expletives. The following of this plan in various countries, together with the publication of photographic and other representations of diseases, has done much to harmonize dermatological thought, and render the study of cutaneous maladies less difficult.

A classification of diseases of the skin, while not of the utmost importance, must, if simple and intel-



cation of diseases of the skin on a basis of pathological anatomy, and his plan, simplified by himself and others, has since been followed more and more, until now a considerable portion of the dermatological world acknowledges it as the best basis upon which to arrange dermatological thought. The author's classification is based upon this plan, and will be found considerably simplified from that first proposed by Hebra, and that given in his text-book.

CLASSIFICATION OF DISEASES OF THE SKIN

CLASS	I.	**Morbi cutis parasitici.** Parasitic Diseases.
"	II.	**Morbi glandularum cutis.** Glandular Diseases.
"	III.	**Neuroses.** Neurotic Diseases.
"	IV.	**Exsudationes.** Exudative or Inflammatory Diseases.
"	V.	**Hæmorrhagiæ.** Hæmorrhagic Diseases.
"	VI.	**Hypertrophiæ.** Hypertrophic Diseases.
"	VII.	**Atrophiæ.** Atrophic Diseases.
"	VIII.	**Neoplasmata.** New Growths.

Class I. Morbi cutis parasitici. Parasitic Diseases.,

A. VEGETABLE.
- 1. Tinea trichophytina (or ringworm) (*parasite—Trichophyton tonsurans*). — corporis (or tinea circinata); capitis (or tinea tonsurans); barbæ (or tinea sycosis); cruris (or eczema marginatum).
- 2. Tinea favosa (or favus) (*parasite—Achorion Schœnleinii*).
- 3. Tinea versicolor (or pityriasis versicolor) (*parasite—Microsporon furfur*).

B. ANIMAL.
- 1. Phthiriasis (or pediculosis) — corporis, capitis, pubis (*parasite—Pediculus*).
- 2. Scabies (or itch) (*parasite—Acarus scabiei*).

MICROBIC. Diseases considered in other classes — exhibiting or caused by *cocci, bacilli, protozoa.*

Class II. Morbi glandularum cutis. Glandular Diseases.

A. Diseases of the Sebaceous Glands.

- **I. Due to faulty secretion or excretion of sebaceous matter.**
  - 1. Seborrhœa
    - oleosa.
    - cerea.
    - cornea.
  - 2. Asteatosis.
  - 3. Comedo.
  - 4. Milium.
  - 5. Steatoma (sebaceous cyst).
- **II. Due to inflammation of the sebaceous glands with surrounding tissue.**
  - 6. Acne simplex (or vulgaris).
  - 7. Acne indurata.
  - 8. Acne rosacea.
- **III. With neoplastic formation.**
  - 9. Acne atrophica.
  - 10. Adenoma sebaceum.

B. Diseases of the Sweat Glands.

- **I. As to quantity of secretion.**
  - 1. Hyperidrosis.
  - 2. Anidrosis.
- **II. As to quality of secretion.**
  - 3. Bromidrosis.
  - 4. Chromidrosis.
- **III. With retention of secretion.**
  - 5. Sudamina.
  - 6. Hidro-cystoma.
- **IV. With inflammation.**
  - 7. Miliaria.
  - 8. Hidro-adenitis.
- **V. With neoplastic formation.** 9. Hidradenoma.

Class III. Neuroses. Neurotic Diseases.

1. Zoster (herpes zoster or zona).
2. Dermatitis herpetiformis.
3. Pruritus.
4. Dermatalgia.
5. Hyperæsthesia cutis.
6. Anæsthesia cutis.
7. Dystrophia cutis (or trophic disturbances).

Class IV. Exsudationes. Exudative or Inflammatory Diseases.

A. Induced by Infection or Contagion.

1. Rubeola (or measles).
2. Rubella (or German measles).
3. Scarlatina.
4. Variola.
5. Varicella.
6. Vaccinia.
7. Syphilis.
8. Pustula maligna.
9. Equinia (or glanders).
10. Diphtheritis cutis.
11. Erysipelas.

B. Of Internal or Local Origin.

- **I. Erythematous.**
  - 1. Roseola.
  - 2. Erythema — simplex. / multiforme. / nodosum.
  - 3. Urticaria.
- **II. Papular.**
  - 4. Lichen — simplex. / planus. / ruber. / scrofulosus.
  - 5. Prurigo.
- **III. Vesicular.**
  - 6. Herpes — febrilis. / iris. / progenitalis. / gestationis.
  - 7. Pompholix.
- **IV. Bullous.**
  - 8. Hydroa.
  - 9. Pemphigus — vulgaris. / foliaceus.
- **V. Pustular.**
  - 10. Sycosis (or folliculitis pilorum).
  - 11. Impetigo.
  - 12. Impetigo contagiosa.
  - 13. Ecthyma.
- **VI. Multiform, *i. e.*, erythematous, papular, vesicular, pustular, etc.**
  - 14. Dermatitis — calorica. / traumatica. / venenata. / medicamentosa. / gangrænosa. / factitia.
  - 15. Eczema.
- **VII. Squamous.**
  - 16. Dermatitis seborrhoica (or eczema seborrhoicum).
  - 17. Dermatitis exfoliativa.
  - 18. Pityriasis rosea.
  - 19. Psoriasis.
- **VIII. Phlegmonous.**
  - 20. Furunculus (furunculosis).
  - 21. Carbunculus.
  - 22. Abscessus.
  - 23. Hordeolum.
- **IX. Ulcerative.**
  - 24. Onychia.
  - 25. Ulcus — simplex. / venereum.

Class V. Hæmorrhagiæ. Hæmorrhagic Diseases.

1. Purpura — simplex. / rheumatica (or peliosis rheumatica). / hæmorrhagica.
2. Hæmatidrosis (or bloody sweat).
3. Scorbutus.

Class VI. Hypertrophiæ. Hypertrophic Diseases.

A. Of Pigment.
1. Lentigo.
2. Melanoderma.
3. Chloasma.
4. Morbus Addisonii.
5. Nævus pigmentosus.

B. Of Epidermis and Papillæ.
1. Ichthyosis.
2. Keratosis pilaris (or lichen pilaris).
3. Tylosis (or callositas).
4. Cornu cutaneum.
5. Clavus.
6. Verruca: vulgaris. senilis. digitata. acuminata.

C. Of Connective Tissue.
1. Scleroderma.
2. Morphœa.
3. Sclerema neonatorum.
4. Elephantiasis (Arabum).
5. Dermatolysis.

D. Of Hair.
1. Hirsuties.
2. Nævus pilosus.

E. Of Nail.
Onychauxis.

Class VII. Atrophiæ. Atrophic Diseases.

A. Of Pigment.
1. Albinismus.
2. Leucoderma (or vitiligo).
3. Canities.

B. Of Corium.
1. Atrophia cutis: propria. linearis (or striæ atrophicæ). maculosa (or maculæ atrophicæ).
2. Atrophia (cutis) senilis.
3. Xeroderma pigmentosum.

C. Of Hair.
1. Alopecia.
2. Alopecia areata.
3. Trichorrhexis nodosa.
4. Fragilitas crinium (or atrophia pilorum propria).

D. Of Nail.
1. Onychatrophia.
2. Leucopathia unguium.

Class VIII. Neoplasmata. New Growths.

I. Benign New Growths.

A. Of Cellular Tissue.
1. Lupus vulgaris.
2. Tuberculosis cutis.
3. Scrofuloderma.
4. Lupus erythematosus.
5. Rhinoscleroma.
6. Molluscum contagiosum.

B. Of Connective Tissue.
1. Keloid.
2. Fibroma (or molluscum fibrosum).
3. Xanthoma (xanthelasma or vitiligoidea).

C. Of Fatty Tissue. Lipoma.

D. Of Muscular Tissue. Myoma cutis.

E. Of Blood-Vessels.
1. Nævus vasculosus.
2. Angioma cavernosum.
3. Telangiectasis.

F. Of Lymphatics.	Lymphangioma.
G. Of Glands.	Adenoma.
H. Of Nerves.	Neuroma cutis.

II. Malignant New Growths.

1. Epithelioma.
2. Carcinoma cutis.
3. Sarcoma cutis.
4. Mycosis fungoides (or granuloma fungoides).
5. Yaws (or frambœsia).
6. Lepra (leprosy or elephantiasis Græcorum).

Of the more than one hundred separate diseased conditions of the skin above enumerated, some are very frequent and others exceedingly rare; many are of relatively little significance, while others are of immense importance, causing great suffering and some even endangering life. Their comparative frequence will be learned from the next chapter.

CHAPTER VI

RELATIVE FREQUENCY OF DISEASES OF THE SKIN: STATISTICS OF TWENTY THOUSAND CASES

THE relative frequency and importance of the different diseases of the skin may be in a measure judged from statistics, although these often fail to represent the true frequency of the affections recorded. Thus, in these following tables there are found very few cases of the febrile diseases of the skin, such as measles, scarlatina, and smallpox, because they comparatively seldom fall under the observation and care of the dermatologist; and many of the more trivial skin disorders also appear in much fewer numbers than occur in reality, as such cases rarely apply for treatment. Again, certain of the most common diseases, eczema and acne, are not even as largely represented as they might be, inasmuch as many cases of eczema are left untreated, and acne is very generally disregarded.

The statistics here presented are from cases observed by the writer in private practice, and in the clinics of the New York Skin and Cancer Hospital and the New York Hospital; for easy comparison of percentages there is taken an even ten thousand

from private practice and the first five thousand from each of the institutions named. It was thought best to exclude a large number seen in other institutions, as records of them had not been kept with sufficient uniformity and accuracy.

ANALYSIS OF 20,000 CASES OF DISEASES OF THE SKIN

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Abscessus	6	4	10	28	13	41	51
Acne	599	1,597	2,196	400	644	1,044	3,240
Adenitis	....	....	.....	19	15	34	34
Alopecia areata	84	48	132	39	22	61	193
Alopecia præmatura	138	197	335	14	14	28	363
Angioma	1	....	1	1	1	2	3
Anidrosis	....	1	1	....	....	.....	1
Anthrax	18	3	21	2	1	3	24
Atrophia cutis	5	2	7	5	2	7	14
Atrophia unguium	....	....	.....	2	8	10	10
Balanitis	12	....	12	90	....	90	102
Bromidrosis	2	1	3	....	2	2	5
Cacatrophia cutis	....	3	3	....	....	.....	3
Callositas	4	2	6	2	1	3	9
Canities	1	8	9	....	3	3	12
Carcinoma	3	34	37	1	5	6	43
Causalgia	1	....	1	....	....	.....	1
Cellulitis	....	....	.....	3	4	7	7
Chancroid	10	....	10	370	19	389	399
Chloasma	5	87	92	1	17	18	110
Chromidrosis	6	5	11	....	....	.....	11
Cicatrix	1	1	2	10	3	13	15
Clavus	....	....	.....	5	5	10	10
Condylomata	....	....	.....	18	3	21	21
Cornu cutaneum	1	3	4	....	....	.....	4
Cystum	1	....	1	12	18	30	31

ANALYSIS OF 20,000 CASES OF DISEASES OF THE SKIN.—*Continued.*

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Dactylitis	....	....	.....	4	3	7	7
Dermatalgia	3	3	6	....	....	.....	6
Dermatitis	94	65	159	142	114	256	415
Dysidrosis	29	8	37	5	5	10	47
Dystrophia cutis	1	....	1	....	....	.....	1
Ecthyma	3	1	4	4	2	6	10
Eczema	1,848	1,353	3,201	1,257	1,354	2,611	5,812
Elephantiasis Arabum	1	2	3	....	1	1	4
Ephelide	....	1	1	....	....	.....	1
Epithelioma	141	84	225	71	60	131	356
Erysipelas	6	9	15	6	10	16	31
Erysipeloid	....	1	1	1	....	1	2
Erythema	56	89	145	25	63	88	233
Erythrasma	....	....	.....	2	1	3	3
Fibroma	2	....	2	6	14	20	22
Folliculitis	7	3	10	12	6	18	28
Fragilitas crinium	1	1	2	....	1	1	3
Furunculosis	59	41	100	37	35	72	172
Herpes	102	53	155	118	41	159	314
Hydroa	9	5	14	4	3	7	21
Hyperæsthesia cutis	3	....	3	....	....	.....	3
Hyperidrosis	18	19	37	8	7	15	52
Hypertrichosis	1	104	105	....	7	7	112
Ichthyosis	22	13	35	14	21	35	70
Impetigo	9	12	21	55	44	99	120
Intertrigo	2	1	3	7	6	13	16
Keloid	7	8	15	3	2	5	20
Keratosis	....	....	.....	3	9	12	12
Lentigo	3	8	11	....	1	1	12
Lepra	9	5	14	5	3	8	22
Leucoderma	39	25	64	6	3	9	73
Leucoplakia	9	2	11	4	....	4	15
Lichen	78	72	150	55	45	100	250
Lipomata	2	....	2	2	1	3	5
Lupus erythematosus	14	40	54	14	35	49	103

ANALYSIS OF 20,000 CASES OF DISEASES OF THE SKIN.—*Continued.*

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Lupus vulgaris	12	27	39	8	30	38	77
Lymphadenoma	....	2	2	....	3	3	5
Lymphangioma	....	....	.....	2	1	3	3
Lymphangitis	....	....	.....	3	....	3	3
Maculæ ceruleæ	1	....	1	....	....	.....	1
Melanoderma	....	2	2	....	....	.....	2
Miliaria rubra	....	....	.....	1	....	1	1
Milium	....	....	.....	2	17	19	19
Molluscum	3	3	6	10	4	14	20
Morbilli	6	10	16	1	3	4	20
Morphœa	2	14	16	1	4	5	21
Mycosis fungoides	....	1	1	....	....	.....	1
Myxomata	....	....	.....	....	1	1	1
Nævus	23	68	91	30	40	70	161
Œdema cutis	....	....	.....	6	5	11	11
Onychatrophia	....	....	.....	1	....	1	1
Onychia	6	10	16	8	12	20	36
Papilloma	....	....	.....	3	1	4	4
Pemphigus	6	8	14	2	3	5	19
Phlegmon	....	....	.....	3	7	10	10
Phthiriasis	19	18	37	74	123	197	234
Pigmentatio	1	2	3	5	13	18	21
Pityriasis	27	51	78	23	36	59	137
Prurigo	....	1	1	1	....	1	2
Pruritus	101	81	182	59	65	124	306
Pseudo-erysipelas	....	....	.....	7	9	16	16
Pseudo-pellagra	....	....	.....	1	....	1	1
Psoriasis	219	163	382	160	158	318	700
Purpura	21	6	27	20	20	40	67
Rhinophyma	....	....	.....	1	....	1	1
Rhinoscleroma	....	1	1	....	....	.....	1
Rosacea	....	....	.....	14	38	52	52
Rötheln	4	10	14	....	2	2	16
Rugæ	....	3	3	....	....	.....	3
Sarcoma	9	5	14	1	5	6	20

ANALYSIS OF 20,000 CASES OF DISEASES OF THE SKIN.—*Continued.*

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Scabies	70	19	89	147	66	213	302
Scarlatina	1	2	3	1	....	1	4
Scleroderma	3	3	6	1	1	2	8
Scrofuloderma	3	18	21	13	7	20	41
Seborrhœa	15	11	26	41	71	112	138
Sudamina	....	....	.....	7	7	14	14
Sycosis	54	....	54	45	....	45	99
Syphilis	452	206	658	1,254	499	1,753	2,411
Telangiectasis	1	2	3	2	3	5	8
Tinea favosa	2	4	6	35	18	53	59
Tinea trichophytina	156	73	229	147	60	207	436
Tinea versicolor	64	21	85	65	31	96	181
Trichorrhexis nodosa	6	12	18	....	....	.....	18
Tuberculosis cutis	3	....	3	17	6	23	26
Ulcus	26	14	40	155	342	497	537
Urticaria	65	99	164	72	108	180	344
Vaccinia	....	....	.....	1	....	1	1
Varicella	6	6	12	7	7	14	26
Varicella prurigo	....	....	.....	2	1	3	3
Variola	5	1	6	....	....	.....	6
Varioloid	1	1	2	....	....	.....	2
Verruca	36	26	62	91	23	114	176
Xanthoma	8	17	25	....	3	3	28
Xeroderma	12	11	23	2	3	5	28
Doubtful diagnosis	11	8	19	2	1	3	22
Grand totals	4,936	5,064	10,000	5,446	4,554	10,000	20,000

Eczema is seen to come first in point of frequency, it occurring in 5,812 of the 20,000 cases, or 29.06 per cent. of the whole; the real frequency of the disease, however, is probably even greater than here

indicated; it probably forms more than one-third of all skin affections as presented to the general practitioner, since the many cases of infantile eczema of family practice do not find their way into the statistics of the specialist; certainly far more than one-half of the eruptions in small children (excluding eruptive fevers) are eczema. In private practice eczema formed 32.01 per cent. of all cases.

Acne is the next most common disease here presented, with 3,240 cases, or 16.20 per cent.; here again statistics fail to give the correct proportion, owing to the general neglect of this eruption. Acne formed more than one-fifth of the private cases.

Syphilis comes next in frequency, with 2,411 cases, or over 12 per cent. of all the cases, the proportion being very much larger in public than in private practice.

The next name to be mentioned, as to point of numbers, is *psoriasis*, giving 700 cases; this makes the percentage but 3.5, showing the disease to be relatively infrequent compared to eczema.

The eruptions due to vegetable parasites appear next in frequency (676 cases, or 3.38 per cent.); the number in these public clinics was only a little greater than in private practice, but the disproportion would be very much greater if the many hundred cases of ringworm seen in public institutions were included in this analysis. Two-thirds of these cases were caused by the parasite *trichophyton tonsurans*, giving

rise to the various forms of ringworm, while there were only fifty-nine cases of *favus* in the entire 20,000.

The various forms of *alopecia* are seen to be very frequent among the private cases, forming 4.67 per cent. of the whole; naturally they are much less frequently recorded in hospital practice.

Urticaria is probably very much more common than would be judged from the 344 cases, or 1.72 per cent., appearing in this table; for many do not think it necessary to seek medical advice for "hives."

The remainder, even of the more commonly known eruptions, appeared in still smaller proportions, under two per cent., and a number of cutaneous maladies occurred but once or twice among the entire number of cases analyzed.

Zoster, or shingles, formed not one per cent. of the 20,000 cases, although the eruption is so startling and often so painful that those affected generally apply for relief. *Scabies* was seen 213 times in public and 89 times in private practice; *lupus* formed but 0.90 per cent.; *nævus*, 0.86 per cent.; *ichthyosis*, 0.35 per cent.; *leucoderma*, 0.35 per cent.; *purpura*, 0.33 per cent; *keloid*, 0.10 per cent.; *morphœa*, 0.10 per cent.; *pemphigus*, 0.09 per cent.; and *scleroderma* but 0.04 per cent.

In regard to sex the patients were remarkably evenly divided, 10,382 males to 9,618 females; but in individual diseases great differences will be found.

Thus in acne the females are more than double the number of the males, while with syphilis there were more than twice as many males as females. Chloasma is seen to be almost exclusively an affection belonging to females, there being 104 cases to 6 of males, while sycosis belongs to the male sex. In eczema the sexes are pretty evenly divided, 3,105 males to 2,707 females; with lupus the females were almost three times as many as the males. Psoriasis presented almost an equal number of both sexes, 379 males, 321 females.

CHAPTER VII

CLASS I. MORBI CUTIS PARASITICI.—PARASITIC DISEASES

PARASITIC diseases of the skin belong to three classes: (1) Vegetable, (2) Animal, and (3) Microbic —of uncertain nature. Of the first there are three principal diseases, of the second two, and of the last a number, in which the pathogenic influence of micro-organisms has been more or less conclusively demonstrated.

A.—Vegetable Parasitic Diseases

The three vegetable parasitic diseases to be considered are: (1) *Tinea trichophytina*, or ringworm in its different varieties; (2) *Tinea favosa*, or favus; and (3) *Tinea versicolor*. The vegetable parasites causing these are supposed to be distinct one from another; they have not been found to be interchangeable in causing disease. Their action is a purely local one; that is, the lesions are produced by the local action of the vegetable growth upon and in the elements of the skin, and not by absorption or by any action of the parasite upon the blood

or the system at large. When the eruption is communicated to another person, or develops elsewhere on the same individual, it is always by direct or indirect transference of the germs of the parasite to and upon the affected spot.

1. **Tinea trichophytina.** Synonyms: *Ringworm; Trichophytosis.* The growth of the parasite *trichophyton* produces quite different appearances as it affects the different portions of the body, and four distinct varieties of eruption from it are recognized, namely: (1) *tinea trichophytina corporis*, (2) ——*capitis*, (3) ——*barbæ*, and (4) ——*cruris*, affecting respectively the general surface and extremities, the scalp, the bearded face, and the genital region. Although really the same disease, these forms or phases of the eruption will best be described and treated of separately, so different are the appearances at times presented.

Recent studies would seem to show that there is more than one form of parasite causing the eruptions recognized as ringworm, but practically their recognition and treatment are one and the same.

TINEA TRICHOPHYTINA CORPORIS.—Synonyms: *Ringworm of the body; Tinea circinata; Herpes circinatus.* This includes the eruption caused by this parasite upon all parts other than the hairy scalp, the bearded face, and the genital region. The lesion begins by the development of a small red spot,

which enlarges peripherally with considerable rapidity, so that in two or three days or a week it may attain the size of a circle half an inch or more in diameter; as it increases at the border, it has a tendency to clear in the centre. The margin is sharply defined, slightly raised, of a well-marked red, and covered with a small amount of easily removed scales. Sometimes, in delicate skins, a few minute vesicles will form on a large spreading border (*herpes circinatus*); this, however, is rare. When at all well developed, the centre of the patch is of a dirty yellowish color, with more or less scaling. There may be one or several patches; I have counted as many as one hundred and three on a child; they may attain some size, and by coalescing may form larger patches; or, as the centre clears, gyrate forms may be produced by the red margins. They generally give rise to but little physical discomfort other than a slight itching.

Diagnosis.—Tinea circinata is most likely to be confounded with *psoriasis*, *dermatitis seborrhoica*, *squamous eczema*, *syphilis*, *tinea versicolor*, and *erythematous lupus*. The history of the case, and the rapid development of the circles of ringworm, with a tendency to clear in the centre, will differentiate them. The diagnosis is established with certainty in all the forms of ringworm by the discovery, in the scales and hairs, of the parasite *trichophyton tonsurans*. The examination is best made by scraping

the surface with a dull knife and placing the débris in a little liquor potassæ and glycerine, equal parts, upon the slide of a microscope, and examining it with a power of from two to three hundred diameters. The mycelium appears as minute, slightly greenish tubes, with parallel sides and rounded extremities, often branching; and the spores as minute rounded bodies, of even size, refracting the light strongly; some little care is necessary to distinguish the latter from fatty globules.

TINEA TRICHOPHYTINA CAPITIS. — Synonyms: *Ringworm of the scalp; Tinea tonsurans; Herpes tonsurans.* Ringworm of the scalp is not always as easy of recognition as might be supposed, and in cases which have lasted any length of time the diagnosis may be very difficult. The eruption begins, as upon the face and body, with one or more small red points, which increase peripherally in a more or less circular form, up to almost any size. When first presented there are commonly seen one or several patches with a diameter of from half an inch upwards, upon which the hairs are broken and stubbed, and the surface covered with a dirty grayish scaling; the history will be given that these appeared quite suddenly, and were noticed mainly on account of the loss of hair. Sometimes instead of these dried patches there is an inflamed condition, and each point of attack of the parasite will be marked by a small pustule or mass of inflammation, surmounted

by a crust; but generally other non-inflamed patches will also be visible.

Sometimes the tendency to inflammation will be so great, that in place of single small points, the entire patch will become inflamed, boggy, slightly elevated above the skin, and tender upon pressure. When this phase of disease has lasted a length of time, each hair is seen to stand in a little well of pus, from which it can be extracted without pain; and a gummy, purulent fluid exudes from the hair follicles on moderate pressure. This form or condition of the disease has received the name of *tinea kerion.*

On attempting to extract the hairs from a non-inflamed patch of ringworm, the stump readily crumbles in the forceps without drawing the root with it; if the patch is scraped with a dull knife, many broken bits of hair will be found with the scales, which are seen to be filled with the spores of the parasite. This broken condition of the hair on these patches may be readily discovered by passing the finger lightly over the surface at a slight distance from the scalp.

In certain old cases the distinctive features of ringworm may be lost, and the scalp is moderately scaly, with thin hair, while among the long hairs there may be found many which are broken and stubbed, as in the patches previously described.

Diagnosis.—Ringworm of the scalp may be mis-

taken for *eczema*, *psoriasis*, *seborrhœa*, *favus*, and perhaps *syphilis*. The stubbed and broken condition of the hairs, and the discovery of the parasite by the microscope, are sufficient for the diagnosis.

TINEA TRICHOPHYTINA BARBÆ. — Synonyms: *Ringworm of the beard; Parasitic sycosis; Barber's itch; Tinea barbœ; Sycosis parasitica; Hyphogenous sycosis.* In the earliest stages of ringworm of the beard, the eruption does not differ essentially from that observed elsewhere on the body; there is first a small red point, which extends peripherally in circular form, while the centre tends to clear, and becomes covered with a moderate amount of scaling. The eruption may remain in this condition without giving rise to much irritation, but in long-standing cases it occasions deep-seated inflammation of the hair follicles, with the production of boggy masses, corresponding to that condition just described as *tinea kerion.*

Diagnosis.—The sharply defined ring, or portion of a ring, which can often be made out, red and more or less scaly, with the history of an increase from a small point, indicates the character of the eruption, together with a discovery of the parasite by a microscopic examination of the scales and hairs. But the eruption may be confounded with *eczema*, *true sycosis*, *seborrhœa*, and *pityriasis*, also possibly with *psoriasis*, *acne*, or *syphilis*. Eczema always presents an imperfectly defined margin, shading out

into healthy tissue, and without the tendency to clear in the centre, and generally exists elsewhere, or spreads out upon the neighboring parts. True sycosis exhibits single, isolated pustules, surrounding hairs, rather than the large boggy masses belonging to the parasitic disease.

TINEA TRICHOPHYTINA CRURIS. — Synonyms : *Ringworm of the thigh and genital region; Chinese, Burmese, and Tokelau ringworm; Eczema marginatum.* The fourth and last variety of the eruption due to the presence and growth of the trichophyton tonsurans, is that occurring about parts which are kept warm and moist, as in the genital region and axillæ, and presents features which at times render it very difficult of recognition. But the development of the eruption here is the same as elsewhere; namely, from a small point which enlarges peripherally, with a tendency to clear in the centre. When presented for treatment, however, one seldom sees small points or even rings; but generally there is a more or less reddened surface with a sharply defined margin, which is red, slightly elevated above the skin, and from which a few scales can be scraped. This narrow margin is of a reddish color, while the surface behind is of a brownish, dirty yellow hue, sometimes, however, quite red and inflamed from previous treatment; occasionally small, newly developing points will be found within the larger area, or outside of the main line of disease. In the male the

eruption on the scrotum exactly corresponds to that upon the thigh; generally the two thighs and the sides of the scrotum are affected unequally. In the region around the anus, and upon the buttocks where the parts come in contact, the eruptions on the opposing surfaces are seen to correspond to each other, and to present the sharply defined margin, with soggy, perhaps whitened, tissue within.

The itching from ringworm in the genital region is generally most intense, and the suffering may be very great. These cases often last a great length of time, being relieved temporarily by treatment, but not cured until the accurate diagnosis is made.

Diagnosis.—The eruption in this location is mainly liable to be mistaken for *eczema* and *intertrigo;* often the two eruptions are combined, either being first developed; the sharply defined margin, and the tendency, more or less, to clear in the centre, should always attract attention. Eczema in this region is worse towards the crotch, and tends to become lighter towards the periphery; simple chafing or erythema intertrigo has the character of eczema in a lighter degree.

Prognosis.—The prognosis of all the forms of ringworm is good; there is a definite local cause, and if it can be removed the eruption will certainly cease. But the prognosis varies a good deal, with the form and location of the disease, and the individual patient. Ringworm of the body always yields more

or less readily. On the scalp and beard it frequently remains uncured for months and years, because of the great difficulty of reaching the parasite, deep within the follicles; in the genital region, if properly treated, it is perfectly manageable.

Treatment.—This is comparatively simple, although the details are difficult of execution in some cases. A number of home remedies are of value in ringworm of the body, such as laying a penny wet in vinegar on the spot, ink, iodine, castor oil, etc. Any of the mercurial ointments, preferably the red precipitate or citrine ointment (Formulæ 97, 101, 106), well rubbed in, will suffice for the removal of the disease on the body. Oleate of mercury in five or ten per cent. solution is also valuable, but there is a possibility of salivating the patient with the too free use of it.

Sulphurous acid, if thoroughly applied, is one of the best and most cleanly parasiticides; to be of value, however, it must be absolutely fresh, for by contact with the air a portion of the sulphurous acid evaporates, while the remainder is converted into sulphuric acid, which is irritating to the skin and useless to destroy the parasite. For this purpose an unopened package should be obtained, and a small bottle repeatedly refilled therefrom. It is to be applied thoroughly to the skin, two or three times a day, undiluted, unless it appears too irritating, and the effect may be heightened by covering the part

with oiled silk. Sometimes additional local stimulation is necessary, as with the compound tincture of green soap (Formula 42); if too much irritation has been set up, soothing treatment will be required (Formulæ 26, 27, 89, 90). Ringworm in the genital region is similarly treated.

Ringworm of the scalp and beard, when recent, may be removed by the means previously described, but when deep-seated, it is very difficult for the remedy to reach the fungus in the follicles, and the extraction of the hairs becomes necessary. If, however, the attempt is made to pull out the hairs from a tolerably well-developed patch of ringworm, they break off, and considerable care will be necessary to insure their removal; they must be drawn perpendicularly to their axis, and repeated attempts will often be made before success is obtained. When depilation is practised, it is always well to rub into the surface afterwards a solution of bichloride of mercury (Formula 51); but this should not be intrusted to the patient, for serious accidents have been reported from the careless use of this remedy.

The plan of destroying the parasite by inflaming the skin, which has recently found some advocates, consists in powerfully stimulating the scalp with such irritants as croton oil, repeatedly applied, and followed by continuous poulticing with flaxseed, until an artificial *tinea kerion* is produced, and a muco-

purulent fluid exudes; the loose hairs are then easily extracted and the inflammation is allowed to subside under soothing treatment, when the disease is frequently found to be cured. This plan must be adopted with caution, as it is not safe to treat too large a portion in this manner, and sloughing has occurred from its careless employment.

The *internal treatment* of ringworm may be briefly disposed of. As moss does not grow upon the bark of perfectly healthy trees, with plenty of air and sunlight, so parasitic diseases seldom flourish upon individuals in perfect health, as has been repeatedly shown by failures in attempts at inoculation. It is always desirable, therefore, especially in cases which have lasted any length of time, to investigate most carefully the general health, and to prescribe intelligently therefor. Arsenic will not cure the disease, but may be required as a nerve tonic, or as an improver of nutrition, in connection with other remedies (Formulæ 64, 65); the same may be said of many other agents. An eczematous habit or diathesis will often be found in ringworm cases; in eczema marginatum constipation aids the congestion, and slight irritation of those parts will give the proper nidus for the development of the parasite; the treatment for eczema is often also required.

2. **Tinea favosa.** Synonyms: *Favus; Porrigo favosa; Crusted ringworm; Honeycombed ringworm.*

This second vegetable parasitic disease is due to the growth in and upon the skin of the *achorion Schönleinii.* Favus is a comparatively rare affection in this country; it occurring only 59 times in our 20,000 cases. The parasite may affect any and every part of the surface of the body, but is more commonly seen or recognized upon the scalp. Here the disease is often severe and obstinate, because of the great size and depth of the hair follicles into which the fungus penetrates. Upon the rest of the surface, where there are no large hairs, the eruption is very superficial, and much more easily cured.

The characteristic lesion of favus consists of a slightly raised, circular, cup-like mass, of a bright yellow sulphur color, commonly seated around a hair, with a depression in its centre. When first appearing, the little cups are exceedingly minute, perhaps not much larger than the head of a small pin; but if left undisturbed, they may grow to the size of a quarter of an inch or more in diameter; they are easily dislodged, and the surface beneath presents a red, glazed appearance. The mass thus removed is found to consist almost entirely of the spores and mycelium tubes of the parasite, which may be readily recognized under the microscope, when ground up with a little liquor potassæ and glycerine, and magnified 300 diameters.

But this characteristic cupped appearance of favus is not seen in every case as presented for treatment;

more commonly there are yellowish masses, having somewhat the appearance of dried pus, around and among the hairs, which may become darkened by dust or blood. In cases which have existed for some time a large portion of the scalp may become affected, and exhibit the disease in various degrees of severity, in cups or simply in dried scaling.

This superficial development, however, is by no means the only portion of the disease; the parasite penetrates the hair and along its root-sheaths, so that when greatly affected, the hairs may be very easily extracted, and do not readily break off. The disease is far more destructive in its tendency than tinea capitis, and may not only injure the growth of the hair, but also destroy the follicle itself, and thus the eruption may be followed by cicatrization and permanent baldness; in old cases patches of scar tissue of greater or less extent are always found, slightly reddened, and perhaps with some scattered hairs upon them. The disease always interferes very greatly with the nutrition of the hair, and renders it dry and harsh.

Favus sometimes appears on other parts than the scalp, and if left undisturbed yellow cups will form, and around them there is generally a ringed, erythematous, scaly surface, very closely resembling ordinary ringworm. In rare cases a large portion of the body may be affected with favus. Favus is always seen in those exhibiting ill health, and generally

occurs in strumous subjects. It is possible, however, that the disease itself, although purely a local one, has something to do with lowering of the health and vitality of the individual.

Diagnosis.—This is not ordinarily difficult, although in cases which have been under treatment the characteristic features may be masked. No other disease exhibits the characteristic cups which will develop if all treatment is suspended for a week or two; and if doubt exists the microscope will always decide. *Pustular eczema* of the scalp, some cases of *syphilis*, *psoriasis*, and *ringworm* are the only diseases with which it can be confounded.

Prognosis.—This should always be guarded, as the disease is exceedingly rebellious. Under exactly proper treatment it is curable, but this always takes much time.

Treatment.—The treatment of favus differs with its situation; upon the scalp, owing to the great size of the hairs and depth of the follicles, it is generally most rebellious, unless the treatment be very thoroughly and faithfully persisted in until the disease is perfectly cured.

External applications, if lightly applied, are of very little service, because they will not penetrate the depth of the follicle; and although the external manifestations may be removed, it will crop out again when left to itself. The method of treatment consists in removing the hair and allowing the para-

siticide to penetrate into the open follicle. Depilation, if thoroughly and efficiently performed, with the use of proper parasiticides, is followed by success. The hairs may be extracted by the forceps, but this is a slow procedure when a large surface is involved; and the method employed by the writer for extracting the hairs *en masse* is much more ready and more certain. This consists in having sticks prepared of a very adhesive material (Formula 21), which are made to adhere to the hairs, and then pulled off. The hair should be cropped to about one eighth of an inch long, over the part to be treated; the sticks are then melted on the end in a spirit-lamp, and applied with a slight rotary or twisting motion, to work the short hairs into their substance. After they have cooled, they are removed by bending them over and pulling the hairs in succession, with a slight twisting motion. The sticks are prepared for further use by burning the hairs in a flame and wiping the end of the stick firmly upon a sheet of paper.

After depilating by this or other means, a solution of bichloride of mercury (Formula 51) is to be well rubbed into the skin by the operator. To be very effective depilation should be practised every day or so until all the affected hairs are removed; it is well to give the patient an ointment (Formulæ 96, 97, 101, 107), to be well rubbed into all the affected parts night and morning.

In epidermic favus the cups are simply picked out and the surface well rubbed with pure sulphurous acid, the oleate of mercury 5 per cent., or one of the mercurial ointments (Formulæ 97, 98, 101).

Most cases of favus should also have some internal treatment of a tonic character (Formulæ 59, 60, 64), in order that the general health may be raised to the standard which will resist the development of the parasite.

3. **Tinea versicolor.** Synonyms: *Pityriasis versicolor; Chloasma?; Liver-spots?; Chromophytosis.* The third and last vegetable parasitic disease of the skin to be described is that due to the presence of the *microsporon furfur.* This is commonly seen first, and mainly, on the chest, in the form of yellowish-brown, slightly scaly patches of various sizes and extent. Sometimes the eruption consists of very many small points, at other times of patches which may cover a very considerable area. The back is almost always affected at the same time, though to a less degree, and the eruption may occasionally spread upon the arms, and even upon the neck and face; and in rare cases upon the lower limbs. Usually it is quite symmetrical; when there is much sweating the surface will be almost free from scales, and may be quite red. There is often slight itching accompanying it. Upon scraping the patches there is always a fine scaling, and the scales placed in equal parts of

liquor potassæ and glycerine, beneath a microscope, exhibit groups or masses of round spores, with more or less of branched mycelium among the epidermal cells.

Diagnosis.—This is comparatively easy; it may be mistaken for *chloasma*, *leucoderma*, *ringworm*, and *dermatitis seborrhoica*. This eruption was formerly called chloasma and "liver-spots"; but the former name belongs to a pigmentary affection, having no connection with the one now described; nor has the present eruption any connection with liver disorder. True chloasma occurs on the face, and seldom, if ever, in a manner to resemble tinea versicolor. In leucoderma there are white patches upon a yellowish or brown base, whereas in the parasitic disease now described we have yellow patches upon a normal skin. Dermatitis seborrhoica of the chest presents circular patches, which are more red in color; the scales are very greasy, and the parasite is not found under the microscope.

Prognosis.—While easily removed, this eruption has considerable tendency to recur, and in many cases it lasts for years; it is often only partially removed by treatment, and then relapses, owing to the failure to entirely reach and destroy the parasite.

Treatment.—The treatment is often ineffectual in permanently removing the eruption, because not persisted in long enough. It consists in the application of a parasiticide, of which there are many of

value. Sulphurous acid in solution will remove the eruption very quickly, also Vlemingkx' solution (Formula 40), and a few sulphur vapor baths will aid greatly; hyposulphite of soda in water (3i.–3ii. ad ℥i.), with a little glycerine, is one of the best remedies; preparations of mercury, as the oleate, citrine ointment diluted, and others, are also effectual; also solutions of corrosive sublimate, four grains to the ounce, with a little ammonia; likewise tarry preparations, well rubbed into the skin, such as the compound tincture of green soap, or the liquor picis alkalinus (Formulæ 42, 43, 44). It is also well to have the patient wash the surface very freely, and for this purpose even yellow bar soap may be used to advantage. Internal treatment is unnecessary and ineffective.

The following rarer diseases belong also to this class*: 1, Tinea imbricata; 2, Erythrasma; 3, Pinta disease; 4, Myringo-mycosis; 5, Vagino-mycosis; 6, Labio-mycosis; 7, Actino-mycosis; 8, Mycetoma; 9, Alopecia areata (some cases).

* See *Twentieth Century Practice of Medicine*, vol. v. New York, 1896.

CHAPTER VIII

CLASS I. MORBI CUTIS PARASITICI.—PARASITIC DISEASES—(*Continued*)

B.—Animal Parasitic Diseases

THERE are a number of animal parasites which may at times attack the skin, but only two of these are of much frequency or importance. The conditions caused by these two are known respectively as (1) *phthiriasis* and (2) *scabies.*

1. **Phthiriasis.** Synonyms: *Pediculosis; Morbus pedicularis; Lousiness.* Three distinct forms of pediculi are found upon the human skin, occupying severally and chiefly the body, the head, and the pubis. Hence we speak of three forms of this affection or condition, namely, (1) *phthiriasis corporis,* (2) *phthiriasis capitis,* and (3) *phthiriasis pubis.*

PHTHIRIASIS CORPORIS.—The body louse has as favorite seats of occupation the regions about the shoulders and hips, and here the greatest number of skin lesions will usually be found. These consist of inflamed and torn papules of various sizes, together with abundant scratch-marks or *excoriations.*

There is also a curious lesion seen, which is caused by the manner in which the insect obtains its nourishment; this consists of a very minute red point, not elevated above the surface of the skin, and is in reality the end of a small plug of blood occupying a dilated follicle, into the bottom of which the insect has penetrated with its proboscis in order to suck blood.

On stripping a patient with phthiriasis corporis, it is rare to find the parasites upon the body, but they may commonly be detected in the folds of the clothing about the parts affected; here likewise are laid the eggs or *nits*, which may be seen by careful inspection, as minute, oval, whitish bodies, adherent to the fibres of the clothing. In debilitated subjects and in long-standing cases the itching may give rise to so much scratching that very considerable lesions result; even ulcerated points, covered with thick crusts.

PHTHIRIASIS CAPITIS exhibits many of the results of scratching and inflammation upon the scalp, in the form of excoriations covered with more or less crusts. The itching is generally quite considerable, and the patient unconsciously tears off the crusts, continually making the eruption worse. In severe cases a large portion of the scalp may be the seat of inflammatory action, and the hairs may be matted together by the exudation; the glands at the back of the neck become enlarged, and the scalp

emits a fetid odor. The pediculi may then be seen moving upon the hairs, and their nits are found attached to the same. In cleanly subjects, however, it will sometimes be difficult to discover them, and only a few nits are seen, and mainly in the region of the occiput.

PHTHIRIASIS PUBIS.—The true cause of itching about the pubis will sometimes pass long unrecognized. In some cases there will simply be a moderate irritation about the genital region, with the occasional development of scratched papules; but in other instances all these parts may be greatly torn, and a considerable eruption exist, which is popularly known as "the crabs." The pediculus pubis or *crab louse* differs from the preceding varieties in being much smaller and more round; it holds very tightly by means of its crab-like claws, and is generally found firmly attached to the hair, near its exit from the follicle, and with its body in close contact with the surface. It may thus readily escape recognition, and appears more like a little scab or crust than a living insect. When it is dislodged, it still holds firmly to the hair, and is with some difficulty removed. It deposits its eggs or nits upon the hairs of the part, and they can generally be found, as minute white specks, attached to them. This crab louse may also infest the hairs of other parts, as the axillæ and beard, also the eyebrows and eyelashes.

Diagnosis.—Upon the scalp the eruption resembles *eczema*, *pustular syphilis*, and possibly *psoriasis;* but the inflammation caused by lice, and the resulting crusts and the itching, are generally far greater than observed in these eruptions. In some cases, however, very few lesions will be seen, and the scalp may be kept so clean that no pediculi can be discovered. But, however great care is exercised, some nits may almost always be found attached to the hair when lice are present.

Phthiriasis of the body may be mistaken for many eruptions, *eczema*, *scabies*, *pustular syphilis*, also for *pruritus*, *prurigo*, and the bites of bedbugs (*cimex lectularius*) ; but the peculiar locations of the principal lesions, over the region of the shoulders and about the loins, should excite suspicion; and a careful examination will generally reveal the marks of the finger-nails in the torn papules and streaks; great care also will reveal the hemorrhagic specks alluded to. The eruption from phthiriasis pubis may resembles simple *eczema* and *scabies;* but the finding of the parasite renders the diagnosis clear.

Many of the cases of phthiriasis of the body and genital regions were formerly called *pruritus* and *prurigo;* these terms, however, belong to entirely distinct diseases; pruritus, or itching, is a symptom of phthiriasis, as also of many other skin affections.

Treatment.—For phthiriasis of the scalp simple

cleansing alone does not suffice, but some agent must be employed which is directly a parasiticide. The most effective and sure application is that of ordinary petroleum or kerosene oil, the commoner the better, as it contains a larger proportion of the volatile elements, which are destructive to the life of both the parasite and its nits. The head should be thoroughly soaked with it two or three times during a day, and left wrapped up in a cloth for twenty-four hours. At the end of this time it is thoroughly washed, and if there are any excoriations, they may be treated with a little zinc or white precipitate ointment (Formulæ 89, 90, 92, 98). One such thorough application is often sufficient for the complete cure of the disease; the nits will then be found to be loosened upon the hairs, and to come off with tolerable readiness; it is never necessary to cut the hair in these cases. Other treatment may be used, as an infusion of stavesacre, also white precipitate ointment in full strength. Lotions of bichloride of mercury should not be intrusted to patients for this purpose, as they are more or less dangerous.

Phthiriasis corporis is easily remedied. After a warm bath with soap and water, fresh clothes, which have been thoroughly boiled and ironed with extra care, are put on; the parasites adhering to the clothing are thus removed, and the clothes which are taken off should be thoroughly baked or boiled.

Some care should also be exercised that other articles of clothing which the patient has worn be similarly treated, lest lice develop anew from the nits attached to them, however carefully removed from other garments. After the cause of the irritation is thus removed, any resulting eruption will quickly subside, spontaneously or with mild treatment suitable for eczema.

Phthiriasis pubis is sometimes a little difficult of removal, because patients do not make sufficiently thorough applications. Any of the mercurial ointments (Formulæ 97, 98, 101) are quite sufficient for the destruction of the parasites, as also ammoniated mercury well dusted on; the danger of salivation should always be borne in mind when the simple unguentum hydrargyri is employed. It is rarely necessary to shave the parts affected with pediculi pubis.

It need hardly be stated that none of the varieties of pediculi can by any possibility burrow beneath the skin, or affect the system at large, as is so often popularly supposed. They are air-breathing insects, and remain wholly upon the surface of the body, and the lesions caused are due to the irritation from them and the consequent scratching.

Several other insects may occasionally attack the skin, causing inflammatory lesions of varying degrees.* Such are: 1, Cimex lectularius, or bedbug;

* See *Twentieth Century Practice of Medicine*, vol. v. New York, 1896.

2, Pulex irritans, or flea; 3, Ixodes, or wood-tick; 4, Dermanyssus, or bird-mite; mosquitoes, gnats, midges, flies, bees, wasps, spiders, etc.

2. **Scabies.** Synonym: *The itch.* This affection, quite different from the conditions just described, is due to the boring into the skin, or rather beneath its epidermal layer, of a minute insect, the *acarus* or *sarcoptes scabiei.* The female does the mischief, she burrowing for the purpose of laying her eggs, which may be found in a little track which she leaves behind her, called the *cuniculus* or *furrow.* The male is said never to penetrate the skin. This little track which the female leaves forms the pathognomonic sign of the disease; it consists of a minute brownish-black line, generally curved, which appears as though a bit of dark-colored sewing-silk had been run beneath the surface. If the skin is washed or wiped, the line will stand out still clearer, instead of being removed, and will be seen to terminate at a point of inflammation, a papule, vesicle, or pustule, or to pass over the surface of one of these. The point of inflammation is caused by the presence of the insect, and she will be found at that extremity of the *cuniculus* or *furrow;* behind her a number of oval eggs in various degrees of development may be observed microscopically, and between them minute black particles, the fæces of the insect. Very recent cases may not present cuniculi, if time has not elapsed for

a sufficient burrowing of the insect, papules or vesicles forming immediately on her penetrating the epidermis.

The lesions of scabies are peculiarly multiform, exhibiting papules, vesicles, and pustules, often of some size, also scratch-marks and crusts; each case varies greatly according to its duration and the condition of the individual in regard to health, cleanliness, etc. In light cases, or in very healthy subjects, papules predominate, with a few vesicles if the skin is delicate; whereas in broken-down constitutions and in children, very severe inflammatory lesions may result, with large pustules, and, when these are scratched, large, superficial, raw patches form, covered with more or less crusts.

There are certain places of predilection which aid very greatly in recognizing the disease. The first in importance is the region about the fingers, especially where they join on the back of the hand; next, on the inner surface of the wrists, also the soles of the feet, and about the malleoli in children; the region of the elbows, and also the buttocks, often present pustular lesions. In males there will almost invariably be found one or more lesions about the penis and scrotum, partaking of the same inflammatory character; and often cuniculi or furrows of the insect may be found here very perfectly developed. In the female the region of the nipple is very often affected, as also the flexor surface of the forearm

and the fold in front of the axilla in both sexes; the face and head generally escape.

The itching of scabies may be quite severe, but is generally relatively mild and bearable; it is even pleasant compared to that in severe eczema. There will almost always be found the history of contagion in scabies, and rarely will one member of a family be attacked alone, especially if there are children.

Scabies is becoming a comparatively rare disease in this country, 302 among the 20,000 cases analyzed, forming only 0.89 per cent. in private, and 2.13 per cent. in public practice. Occasionally it appears in public institutions, and the disease may be difficult to eradicate. In some countries, as in Scotland, it is much more frequently met with, and in statistics from Glasgow it formed about twenty-five per cent. of all cases of skin disease. During our Civil War it was quite common, and was often spoken of as the "army itch."

Diagnosis.—As may be judged, the eruption of scabies may be confounded with very many affections of the skin: *dermatitis herpetiformis*, *eczema*, *lichen*, *phthiriasis*, *prurigo*, *pruritus*, and *urticaria papulosa;* between papular and vesicular eczema of the hands, and mild, recent scabies, the diagnosis is often very difficult.

Prognosis.—This is good; of however long standing, the disease may be rapidly and thoroughly cured if proper and complete treatment is carried out.

The system is never affected, and there is no harm in removing the disease as quickly as possible.

Treatment.—This is accomplished purely by external means. As an indication of the plan to be followed we may mention the rapid cure practised at the Hôpital St. Louis, in Paris. The patient is first very thoroughly rubbed all over from head to foot with soft soap, especial attention being paid to the regions most apt to be affected; this process occupies about half an hour. The patient then takes a warm bath, remaining in it for half an hour or so, in the meantime scouring the skin thoroughly. On coming out of the bath, he is thoroughly rubbed from head to foot with an ointment containing sulphur (Formulæ 108, 109), and this process also takes half an hour at least, particular attention being given to the portions mentioned as most commonly affected. The clothes, which have been thoroughly baked while the patient was in the bath, are now put on, and it is expected that the disease is thus entirely cured. The idea of the first friction is to open the furrows, as far as possible removing the eggs which would hatch out; these, with the male insect, the bath then removes from the skin. The sulphur ointment, being then thoroughly rubbed into all the parts, enters the open cuniculi and completes the destruction of the insects. The clothes having been baked at a high temperature, all the insects which may have lodged upon them are destroyed.

Sometimes cases of scabies are overtreated, or are so severely irritated by the measures used for the destruction of the parasite, that an artificial papular eruption results, which more or less imitates the disease. In such cases a soothing treatment may be employed for a few days, such as is suitable for an eczema, and the case is then left a little without treatment. If there are still the elements of scabies remaining they will then become apparent.

A number of other parasites, or their larvæ, may penetrate the skin, causing various symptoms; but most of them are rare in this country.* These are: 1, Leptus autumnalis, or harvest bug; 2, Pulex penetrans, or jigger; 3, Demodex folliculorum, or comedo mite; 4, Dracunculus (or filaria) medinensis, or Guinea-worm; 5, Filaria sanguinis hominis; 6, Craw-craw; 7, Cysticercus cellulosæ; 8, Echinococcus cutis; 9, Œstridæ, or bot-flies; 10, Muscidæ, or common flies, etc.

C.—Microbic Diseases

The influence of micro-organisms as the active causative agents of many diseases of the skin has not yet been sufficiently defined and established to allow of a satisfactory classification and location of them. Microscopic organisms exist in large numbers and great variety on the healthy skin, and several have

* See *Twentieth Century Practice of Medicine*, vol. v, New York, 1896.

been isolated in connection with a number of different diseases of the skin. Some of them are undoubtedly pathogenic, but in many instances their presence seems to be casual and not causal, while in others it is possible or probable that the organisms are present as the result rather than the cause of disease. In estimating the influence of micro-organisms it is important to regard the soil on which they flourish; general and constitutional conditions are, consequently, often of more importance than the organisms themselves.

It has been thought best, therefore, to still retain all the diseases which might be claimed for this class under other groups, until more clear and positive demonstration has been made of the etiological influence of the organisms.

The following list shows, more or less completely, the diseases in which micro-organisms have been claimed to be etiological factors:

DISEASES OF MICROBIC ORIGIN

Cocci believed to be the Cause.	Acne (see also bacilli).	Staphylococci.
	Delhi boil.	
	Dermatitis papillaris capillitii.	
	Diffuse phlegmon.	
	Ecthyma.	
	Furuncle.	
	Hydro-adenitis.	
	Impetigo.	
	Impetigo contagiosa.	
	Panaritium.	
	Perifolliculitis suppurativa conglomerata.	
	Sycosis coccogenica.	
	Erysipelas.	Streptococci.
	Impetigo contagiosa streptogenes (Unna).	
	Carbuncle.	Staphylo- and streptococci.

BACILLI BELIEVED TO BE THE CAUSE.	Anthrax (malignant pustule).	
	Glanders.	
	Lepra.	
	Lupus.	
	Tuberculosis cutis.	
COCCI NOT DEFINITELY PROVEN TO BE THE CAUSE.	Impetigo herpetiformis.	Staphylococci.
	Pemphigus acutus.	
	Phagedæna tropica.	
	Vaccinia.	
	Variola.	
	Framboesia.	Streptococci.
	Mycosis fungoides (see also bacilli).	
	Phlyctænosis streptogenes (Unna).	
	Acne varioliformis.	Staphylo- and streptococci.
	Erythema multiforme.	
	Alopecia areata (see also bacilli).	Micrococci.
	Epidemic dermatitis (Savill).	
	Hyperkeratosis subungualis (Unna).	
	Noma (see also bacilli).	
	Eczema seborrhoicum (see also bacilli).	Morococci (Unna) (Mulberry cocci).
	Pemphigoid exanthem (Unna).	
	Pityriasis rosea.	
	Psoriasis.	
BACCILLI NOT DEFINITELY PROVEN TO BE THE CAUSE.	Acne (see also staphylococci).	
	Alopecia areata (see also micrococci).	
	Chancroids.	
	Cheiropompholix.	
	Eczema seborrhoicum (see also morococci).	
	Erythema nodosum.	
	Lichen ruber.	
	Lichen scrofulosorum.	
	Measles.	
	Miliaria rubra et alba.	
	Mycosis fungoides (see also streptococci).	
	Noma (see also micrococci).	
	Pemphigus vegetans.	
	Purpura hæmorrhagica.	
	Rhinoscleroma.	
	Scarlatina.	
	Sycosis bacillogenica (see staphylococci).	
	Syphilis.	
	Trichorrhexis nodosa.	
PROTOZOA.	Carcinoma.	
	Herpes zoster.	
	Keratosis follicularis contagiosa (Brooke).	
	Molluscum contagiosum.	
	Paget's disease.	
	Psorospermosis follicularis vegetans (Darier).	

In judging of the etiological relations of micro-

organisms it is well to remember what is known as Koch's four postulates regarding their true pathogenic character:

1. They must be found in the blood, lymph, or diseased tissue of those suffering from, or dead of, the disease.

2. Pure cultures must be obtained.

3. These pure cultures must reproduce the disease, when artificially inoculated.

4. The same micro-organism must be recovered from the disease produced.

All these conditions are hard to fulfil in every instance, but are essential before complete acceptance of the microbic origin of disease.

CHAPTER IX

CLASS II. MORBI GLANDULARUM CUTIS.—GLANDULAR DISEASES

THE diseases belonging to this group are divided into two classes, namely: A. those relating to the sebaceous glands, and B. those affecting the sweat glands.

A.—Diseases of the Sebaceous Glands

The diseases of the *sebaceous glands* comprise ten distinct conditions, several of which may often be found more or less associated in the same individual. Of the sebaceous diseases we find three orders: First, those due to faulty secretion or excretion of the glands, (1) *Seborrhœa*, (2) *Asteatosis*, (3) *Comedo*, (4) *Milium*, and (5) *Steatoma;* second, those exhibiting inflammation of the sebaceous glands with the surrounding tissue, (1) *Acne simplex*, (2) *Acne indurata*, and (3) *Acne rosacea;* and third, those with neoplastic formation, (1) *Acne atrophica*, and (2) *Adenoma sebaceum*.

1. **Seborrhœa.** Synonyms: *Seborrhagia; Steatorrhœa; Fluxus sebaceus.* Three distinct forms of

this variety of functional sebaceous disorder are recognized: *seborrhœa oleosa, s. cerea,* and *s. cornea.*

SEBORRHŒA OLEOSA.—In this the skin is more oily than natural, and has a greasy, shiny appearance. Upon the face and forehead it may exist to such an extent that the oily secretion will stand in drops upon the skin. When the scalp is affected the hair presents an unctuous condition, and emits a nauseous odor.

SEBORRHŒA CEREA.—This dry form of seborrhœa is characterized by the presence of greasy masses of scales or crusts, of a yellowish or grayish-brown color, which tend to adhere to the skin. Upon the nose and cheeks it may present a very disagreeable and annoying coating; upon the scalp the secretion may either remain quite greasy and accumulate, so that it can be removed as a yellowish, crusty mass, with the finger-nail; or it dries into scales, which fall continually upon the clothing, and thus constitutes a large share of the cases ordinarily called *dandruff* or *dandriff.* Commonly a large portion of the scalp is affected, and loss of hair ensues to a greater or less extent. Seborrhœa of the scalp often resembles closely a dry *scaly eczema, dermatitis seborrhoica,* a *pityriasis,* or *psoriasis.*

SEBORRHŒA CORNEA is characterized by the development, principally upon the face, of horny sebaceous masses and concretions which, when forcibly removed, are found to have projections into the

orifices of the sebaceous glands; sometimes their removal causes slight bleeding. This condition may remain, especially in elderly persons, for a length of time, and may result in epithelioma.

Treatment.—The constitutional treatment of these functional sebaceous disorders is essentially that of inflammatory acne, to be described later. Locally stimulating and astringent applications are called for (Formulæ 34, 55); on the scalp tannin and white precipitate ointment (Formulæ 94, 98) are very serviceable, with an occasional shampoo with tar soap, or green soap in solution (Formula 41); later, mildly stimulating lotions are called for, and still later those with cantharides (Formulæ 56, 57, 58). The local treatment of seborrhœa of the face is practically that of the other forms of acne, with the addition of a bismuth and white precipitate ointment (Formula 98).

2. **Asteatosis.** Diminution in the amount of sebaceous matter produces a dry, harsh, slightly scaly condition of the skin. It may be general or partial, and be either congenital or acquired; the latter is far more common. Asteatosis is a natural accompaniment of old age, and may occur in connection with many diseases; as in marasmic states, on paralyzed limbs, and in many cases of eczema, lichen ruber, dermatitis exfoliativa, etc. Asteatosis, more or less pronounced, may be produced artificially by

frequent or prolonged contact of the skin with alkaline solutions, or drying substances, whether in the occupation or used medically.

Diagnosis.—The dry, harsh condition gives to the touch an entirely different sensation from the normal skin where the sebaceous glands yield their proper secretion.

Prognosis.—The congenital form is extremely difficult to benefit more than temporarily, although a prolonged tonic treatment, including abundant fatty matter and phosphates with proper local measures, will often yield unexpectedly good results. In acquired cases much more can be expected from proper treatment.

Treatment.—In addition to the above, good results are obtained from the very free inunction twice daily, with massage, of fatty substances, cod-liver oil, linseed-oil, palm-oil, or the unguentum lanolini compositum (Formula 112).

Three forms of disease are recognized which are due to retention of the sebaceous matter, namely: (1) *comedo*, (2) *milium*, and (3) *steatoma*.

3. **Comedo.** This represents the little black specks seen upon the face, commonly called *blackheads*, *worms*, or *grubs*. These consist of hardened plugs of sebaceous matter retained within the cavity and ducts of the glands; the blackened end is proba-

bly due to dust from the atmosphere, although this has been disputed of late. The foundation for the popular idea that these plugs, which can be squeezed out, are themselves worms or insects, lies in the fact that there is in reality a very minute animal which infests the sebaceous glands; it is, however, by no means of such a size as one might imagine. It is called the *demodex* or *steatozoön folliculorum*, and is exceedingly small, being in length from $\frac{1}{150}$ to $\frac{1}{75}$ of an inch, and in breadth about $\frac{1}{300}$ of an inch; but this animal is perfectly harmless and entirely innocent of the disease; a number may be found in a single plug, or again several masses may be examined without finding one.

The *treatment* of comedo is that of acne. Locally some good may be done by removing the specks with a watch-key, or a tube comedo-extractor, but unless a material change is made in the patient's tone of health the glands will refill with the disordered sebaceous secretion.

4. **Milium.** Synonyms: *Grutum; Strophulus albidus.* Milia are the little white specks or bodies often seen in the neighborhood of the eyes, on the upper part of the face, and occasionally on other parts of the body. They consist of small collections of epithelial cells, probably portions of a sebaceous gland, which may have undergone alteration and calcification, situated beneath a very thin layer of

skin; they cannot be squeezed out, as can comedones, and do not always come out, even when the skin is punctured over them.

5. **Steatoma.** Synonyms: *Atheroma; Wen; Sebaceous cyst.* These appear as small, globular, movable tumors, with semi-fluid contents, projecting slightly above the surface, covered with normal or slightly reddened skin. It is not sufficient to evacuate their contents, as the sebaceous sac will pretty certainly refill, and they should be removed entire or enucleated. When already opened, the sac can sometimes be drawn out with the forceps, and by a little care can be entirely removed.

The next three varieties of sebaceous disease are due to inflammation of the glands and surrounding tissue; they are, (1) *acne simplex*, (2) *acne indurata*, and (3) *acne rosacea*. These, although defined and classified as separate eruptions, are really but varieties of one and the same affection, and their nature and treatment will be considered together. They are also very closely associated with many of the conditions already described, several of which are constantly seen variously intermingled, and occasionally all of them may be distinctly made out on the same individual.

6. **Acne simplex.** Synonyms: *Acne vulgaris;*

Acne disseminata; Acne juvenilis. This represents the eruption commonly seen upon the faces of young people, consisting of scattered papules or pustules, generally associated with the black points of *comedones.* The disease presents different degrees of severity in different subjects, from a few irregularly scattered papules or pustules, to a very badly marked face. The lesions are due to inflammation about sebaceous glands, which is generally the result of hardened sebum retained in them; often the end of the sebaceous plug will be seen in the centre of an inflamed point, which subsides as soon as it is expressed. Quite as often, however, this is not seen externally, but the cavity of the gland is blocked, and when the point is freely opened a minute solid mass escapes with the blood and pus.

7. **Acne indurata.** Synonyms: *Acne tuberculata; Acne cachecticorum.* This name is given to cases where the lesions are larger, forming indurated masses, from the size of a small pea even up to that of a small chestnut, generally of an indolent character, purplish, and slow to suppurate. While the acutely tender points of acne simplex have, as a rule, to do with but a single blocked and inflamed gland, in acne indurata a series of glands and circumscribed masses of tissue are involved, and the single elements may partake rather of the characteristics of *dermic abscesses* than of the lesions ordinarily recog-

nized as acne. These are often very indolent, lasting weeks or months, and giving little or no pain upon pressure; they commonly have no pustular summits, but require to be lanced before pus is discovered; when opened the contents are often found to be of a grumous character, and sometimes fetid.

8. **Acne rosacea.** Synonyms: *Gutta rosea; Couperose.* The preceding forms of acne are almost always seen in young persons, whereas this form of sebaceous disease belongs to older periods of life. The characteristic location of the eruption is about the central portion of the face, included in a line dropped from the external angles of the eyes to the chin; the surface is more or less evenly reddened, perhaps with some dilated blood-vessels, and with many or few separate papules or pustules. There is a heat and burning in the part, with redness and flushing upon the slightest excitation, also after eating and drinking, or on entering a hot room.

When there is mainly a congestive redness, especially affecting the nose, the term *rosacea* alone is given by many writers; this condition is particularly rebellious. When rosaceous acne has existed a long time, hypertrophy may take place, with great enlargement of the nose, giving rise to the condition known as *rhinophyma.*

Acne simplex and indurata may affect the back, shoulders, and chest, as well as the face, and in some

instances may cause very great scarring; acne rosacea affects only the face.

Etiology.—The causes of acne are always found in a lowered vitality, very commonly associated with constipation and assimilative disorders, and also with sexual disturbances. Acne frequently improves greatly after marriage, although it is not rare to find quite severe cases in those who are married and have had children.

Diagnosis.—While it is usually easy to recognize acne, in certain instances the diagnosis may be difficult. Acne simplex may resemble a *papulo-pustular syphiloderm*, *papular eczema*, *impetigo*, and also eruptions produced by *iodine* and *bromine;* acne indurata may be mistaken for a *tubercular syphiloderm* and *furunculus;* and acne rosacea is sometimes difficult to distinguish from an *erythematous* and *papular eczema*, a flat *tubercular syphiloderm*, and *lupus erythematosus* and *vulgaris*.

Prognosis.—Acne is always a stubborn disease, but with patient and intelligent treatment it can be cured; relapses are common when the causative conditions return.

Treatment.—To be successful, the treatment of acne must embrace both constitutional and local measures. The constitutional treatment includes diet, hygiene, and internal medication. Certain articles of food almost invariably produce acne in

some individuals; the articles having this special tendency are buckwheat, pastry, hot bread, nuts, cheese, chocolate, fried substances, and excess of sweets and starches, also milk; it is generally necessary to cut off many of the so-called luxuries of life; among them, wines and beer, also sweet and rich articles of food. Exercise is all-important, and the proper care of the skin by bathing and otherwise must never be neglected.

There is no one internal remedy which will have any great and permanent effect upon all cases of acne; arsenic will not cure the disease. The measures to be used are those directed principally to the restoration of perfect health, and to the removal of assimilative and nutritive debility, often shown by constipation and dyspepsia, also urinary and sexual disturbances. The constipation is to be met by measures which induce healthful activity of the chylopoiëtic viscera, and not simply by repeated purgatives or by mineral waters; the pill of aloes and iron (Formula 78) will be found of great service, if used carefully and intelligently, as described in connection with eczema. For the dyspepsia, the most varied measures may be required; a cup of hot water, taken half an hour before eating, will often be of the greatest assistance. In a large number of cases of acne, however, alkalies will be found to yield the best results, combined with various vegetable remedies (Formulæ 60, 61, 63). In a certain

number of cases, the acne will depend almost entirely upon pure debility, and powerful tonics will be called for (Formulæ 59, 64, 65, 66). Arsenic may act as an adjunct, later in the treatment of the disease; but it is almost useless to give it until other elements have been treated. Cod-liver oil and hypophosphites are sometimes of invaluable aid. In some cases uterine disturbances will seem to be the cause of the continuance of the eruption, but in quite a share of these instances the removal of the portal congestion, which may give rise to both the uterine derangement and the acne, will be all-sufficient to remove the disease.

The *local treatment* of acne is varied, and ofttimes the measures which are suitable to one case will prove of no avail or harmful in another. If stimulation is resorted to, it should be active, sharp, and perfect, followed by suitable soothing remedies. In a large share of the cases, slightly astringent and soothing lotions will be found of the greatest service (Formulæ 36, 37, 38, 39); it is well where there is much inflammation to begin with very mild applications (Formulæ 26, 27, 28), using the sulphur preparations when in a less active condition.

The greatest benefit is observed in all the inflammatory forms of acne from the local use of very hot water, conjoined with other treatment. The water should be employed as hot as the face can bear,

applied by means of a handkerchief; this is dipped in the water and held for a few moments to the part, the operation being repeated two or three times, lasting altogether not more than from two to three minutes; after this the suitable lotion is applied and left on all night. The hot water should be used only at night, and only as described, and the face washed with cold water in the morning; but the lotions or other applications may be kept freely applied with advantage. Much gain can also be had by removing the comedo plugs and freely lancing all the inflamed points, the bleeding being encouraged by bathing with tepid water; a single thorough operation can accomplish more than a week or two of other local treatment. Where the disease is indolent, stimulation is required, as with caustic potassa (Formula 17), followed by a soothing ointment, as of zinc (Formulæ 89, 90).

Two forms of sebaceous disease, associated with neoplastic formation, are recognized: (1) *acne atrophica*, and (2) *adenoma sebaceum*.

9. **Acne atrophica.** Synonyms: *Acne varioliformis; Lupoid acne; Acne necrotica.* This rather rare disease exhibits small, indolent, red, flat papules, tending slowly to suppuration and crusting, and which on disappearance leaves scars like those of smallpox. It is most common upon the forehead and temples, also the scalp, but has been observed

on the chest and elsewhere. It is very chronic, new lesions forming from time to time, and remaining weeks before subsiding. It affects men and women alike, generally from the age of twenty-five to forty.

Etiology.—No cause is known.

Diagnosis.—The eruption most resembles a *late tubercular syphiloderm*, also very indolent *acne*.

Treatment.—My cases have all done excellently under the measures of value in acne indurata: alkalies before meals (Formula 63), with an aloes and iron pill (Formula 78) if there was the slightest tendency to constipation. Locally, the very free use of the *lotio alba* (Formula 36), kept applied on bits of absorbent cotton left to dry on the part, with the free use of the hypochloride of sulphur ointment (Formula 110), gives the best results.

10. **Adenoma sebaceum.** This rare affection exhibits small, indolent tumors, roundish or flattened, of varying color, from yellow to red, firm, often covered with a network of dilated vessels. The lesions are commonly multiple, and sometimes exist in large numbers, mainly over the central portion of the face. They are generally congenital, but increase in number and size with age. There is little or no tendency to suppuration, and they may remain quiescent for an indefinite length of time, giving rise to no subjective symptoms.

Treatment.—This is purely surgical, by the curette or electrolysis.

B.—Diseases of the Sweat Glands

Five varieties of disorder of the sweat glands are recognized: 1. As to quantity of secretion; 2. As to quality of secretion; 3. With retention of secretion; 4. With inflammation; 5. With neoplastic formation.

1. The *quantity* of secretion may be either augmented or diminished; to the former state is given the name of (1) *hyperidrosis*, and to the latter (2) *anidrosis*.

1. **Hyperidrosis.** Synonyms: *Ephidrosis; Excessive sweating.* This condition may be either general or partial; general sweating is observed in certain cachectic diseases, as phthisis. The local forms of sweating are very annoying at times, and are frequently presented for treatment; the most common locations are the palms and soles, and axillæ, although other parts of the body may be affected. Hyperidrosis of the palms is readily recognized; on the feet, however, the condition may be quite peculiar. The patient will complain of tenderness of the soles, with more or less burning, which may increase to such an extent that walking and standing become very painful. The sole and the region of the toes is seen to be reddish or pink,

and to have a soddened condition; not much moisture can usually be found, as it is readily absorbed by the socks and shoes.

Etiology.—The true causes of increased sweating are not determined, but there is little doubt that it always indicates debility, generally nervous.

Prognosis.—The condition is apt to prove rebellious.

Treatment.—This is both internal and local; internal treatment should include every measure calculated to restore nervous and general vigor, especially including strychnine, quinine, iron, arsenic, digitalis, and ergot. There is one remedy which has been found to exercise a very marked control upon the secretion of sweat, but which has to be used with caution; this is atropine, given internally, and I have seen $\frac{1}{480}$ of a grain at a dose exhibit this power to a striking degree. After a time, however, it seems to lose its effect. Sulphuric acid alone, or administered with quinine, is also of very considerable service.

The *local treatment* consists of astringent remedies, and the local application of belladonna; for sweating of the hands a certain amount of benefit can always be obtained by rubbing half a teaspoonful of the tincture well into the palms. Excessive sweating of the feet can very commonly be controlled by a thorough and constant application of the unguentum diachyli (Formulæ 103, 104); this should

be spread on lint and worn upon the soles night and day continuously for a period of from at least ten days to three weeks, the dressings being changed once or twice daily. Foot-baths of infusion of white oak bark, also powders containing salicylic acid (Formula 85), well rubbed into the soles and sprinkled in the socks, are of service.

2. **Anidrosis.** Diminution or arrest of sweating is indicated by a dry, harsh state of the skin (*xeroderma*), with more or less exfoliation. It is found in certain cachectic diseases, as in chronic nephritis and cancer, also in ichthyosis, and in general chronic eczema; it is likewise sometimes presented for treatment unconnected with any other apparent disturbance of health. No cause is known. The patient should always be treated in accordance with indications present, as with tonics, more or less alkalies, and the best diet and hygiene. Alkaline baths (Formulæ 1, 2, 3), followed by inunction with oils, the glycerite of starch, or cosmoline (Formulæ 111, 112), will generally succeed in relieving the condition, though very often perfect restoration of the skin to a healthy condition is almost impossible.

2. The *quality* of the secretion may be altered, as to its *odor* and its *color*.

3. **Bromidrosis.** Synonyms: *Osmidrosis; Offensive sweating.* This is generally associated with the

first variety of sweat disorder, namely, hyperidrosis; although sometimes there will be an unnatural odor to the perspiration, without any apparently great increase. The entire body may emit an offensive smell, but more commonly this is confined to certain locations, more particularly the feet, axillæ, and genital regions. The same measures which are of value in excessive sweating are generally of service in this condition.

4. **Chromidrosis.** Synonym: *Colored sweating.* This is a curious state, which has been described by a number of observers; black, blue, green, yellow, and red sweat have all been recorded. In the axillæ and genital region, it is not so very uncommon to find a red condition, apparently of the sweat, which, however, is due to a micro-organism on the hair; the hairs are in a condition of *leptothrix*, or covered with an irregular concretion, containing the bacterium.

Another form of red sweat is that where blood has exuded and mingled with the secretion; this will be described later, among hemorrhages, as *hæmatidrosis.*

Nothing is known with regard to the etiology, and little with regard to the treatment of chromidrosis. These cases have usually been observed in nervous and hysterical subjects, generally females, and there is strong reason to believe that in some of the instances deception has been practised.

3. The sweat *secretion may be retained*, acutely, or in a more or less chronic condition.

5. **Sudamina.** Synonym: *Miliaria crystallina.* By this term is indicated an acute affection of the sweat glands, characterized by retention of secretion, which is seen especially in connection with certain febrile conditions. It is most characteristically exhibited upon the abdomen during the course of typhoid fever and rheumatism, as minute vesicles, with a very delicate covering and perfectly clear contents; there is usually no inflammation around them, and they appear studding the surface as though minute drops of water, "dewdrops," had been sprinkled upon it. The condition is one which calls for little or no treatment.

6. **Hidro-cystoma.** Synonym: *Dysidrosis of the face.* This affection exhibits small globular elevations with clear contents, and generally without surrounding inflammation. It is most commonly seen in women of about middle age, and especially in those much exposed over the fire, as cooks and laundresses. Thus far the eruption has been observed only on the face. The lesions are sluggish, and may remain for days or months, giving little annoyance, but are much less marked in cold weather, and may then disappear spontaneously.

Nothing is known as to their causation, other than that they are cysts of the sweat glands.

The treatment consists in opening the little vesicles, and the application of mildly astringent and soothing lotions and ointments.

4. Two conditions are recognized accompanied by *congestion* and *inflammation* about the sweat glands, namely, *miliaria* and *hidro-adenitis.*

7. **Miliaria.** Synonyms: *Miliaria rubra; Lichen tropicus; Prickly heat.* This eruption, very common in warm weather, exhibits varying degrees of severity from a mildly unpleasant formication to an intensity of tingling, pricking, burning, and itching almost unbearable. It is characterized by the sudden development of minute red papules, with some vesicles, generally thickly set, with some little general redness of the skin, and more or less sweating. The eruption may be localized or may develop very generally over the body and extremities.

The "*red gum*" or *strophulus* of infants is of this nature.

Etiology.—The trouble is caused by excessive heat, with some cutaneous irritation, as by flannel or harsh underwear, and in those overheated by injudicious eating or drinking.

Diagnosis.—The eruption most resembles acute *vesicular eczema.*

Treatment.—Cooling diuretics and laxatives (especially the bitartrate of potassa) with a light diet afford the quickest relief. Locally sedative lotions

and powders (Formulæ 26, 27, 28, 84, 85, 88) with the removal of heating and irritating underclothing are all that is required. To overcome the tendency to the trouble, alkaline baths (Formulæ 1, 2) will be of service, with the subsequent use of emollient ointments (Formulæ 111, 112).

8. **Hidro-adenitis.** Synonyms : *Hidrosadenitis; Hidradenitis.* This consists of deep-seated points of inflammation about the sweat glands, over which the skin is at first unaffected and movable. As the nodules gradually enlarge they reach the surface, which is raised and reddened, and a small amount of pus may be reached by incision. If left alone they burst spontaneously, crust over, and later a slightly depressed scar is left. The lesions may occur anywhere, but are most common in the axillæ, about the anus and nipple, and also on the face and neck. In the axilla they may give rise to abscesses of some size which may be very painful.

Etiology.—Little is known as to the cause, but it is presumed to be deep infection by micro-organisms.

Diagnosis.—On the face the lesions resemble deep lesions of *acne indurata;* about the axillary and anal region the lesion is difficult to distinguish from *furuncle* and it has been called "*sweat furuncle.*"

Treatment.—Tonic and alterative, internal measures, according to the indications present, and, locally, incision and proper antiseptic dressing.

5. The sweat glands may undergo *neoplastic alteration.*

9. **Hidradenoma.** This very rare neoplastic disease of the sweat glands exhibits small, indolent, pearly or reddish nodules from which a clear fluid can be expressed on puncture. The disease is closely allied to epithelioma, but is of a very benign character.

Treatment.—This is surgical, by means of the curette or cautery, with appropriate dressings.

CHAPTER X

CLASS III. NEUROSES.—NEUROTIC DISEASES

SEVEN affections of the skin are classed as neurotic, because in them a nerve element largely predominates; these are (1) *zoster*, (2) *dermatitis herpetiformis*, (3) *pruritus*, (4) *dermatalgia*, (5) *hyperæsthesia cutis*, (6) *anæsthesia cutis*, and (7) *dystrophia cutis*. Additions might be made to this group of such eruptions as erythema, urticaria, eczema, and others presenting nervous phenomena, but these are more properly and definitely arranged in other classes.

1. **Zoster.** Synonyms: *Herpes zoster; Zona; Cingulum; Shingles.* This is an acute, inflammatory affection, characterized by the formation of groups of vesicles upon an inflamed and very sensitive surface corresponding to a definite nerve tract, accompanied by more or less neuralgic suffering. Considerable pain may precede the eruption, and this is very frequently supposed to be simple neuralgia; counter-irritation, as by a mustard plaster, may be applied to relieve this, and the eruption will appear shortly after, quite independent, however, of the

skin excitation. Zoster is peculiarly and essentially a neurosis, as the eruption is found to be confined to the area of distribution of certain cutaneous nerves; and post-mortem examinations have demonstrated, most conclusively, disease of the nerves supplied to the part. The nerve trunk is found reddened and inflamed, and the posterior or sensory ganglion is congested, softened, and succulent.

The eruption of zoster is generally confined to one side of the body; on the chest (*zoster pectoralis*) or abdomen (*zoster abdominalis*) it will be found to reach in a band from the middle line posteriorly to the middle line anteriorly. The vesicles are usually in groups, and may run together, forming bullæ, but generally do not exceed the size of a small split pea. They are quite peculiar, and different from those seen in any other affection, being flat, and having but slight tendency to rupture. The surface between them is reddened and often exquisitely painful to the touch, sometimes presenting papules which have not yet developed into vesicles. When the nerve lesion is seated in the lowest portion of the spinal axis, the eruption will occupy one or the other lower extremity (*zoster femoralis*). When the nerve inflammation is seated higher up, near the neck, the band of lesions will extend down the arm (*zoster brachialis*), and may even reach to the tips of some of the fingers. When still higher up in the cerebro-spinal axis, the eruption will be seated on

the head, extending behind the ear (*zoster collaris*), or upon the occiput. Occasionally the Gasserian ganglion is affected, and the eruption is distributed over one or more branches of the tri-facial nerve; the supra-orbital branch is then most commonly affected, and the eruption extends upon one side of the forehead, reaching into the hair (*zoster ophthalmicus*). Sometimes there are groups of vesicles upon the side of the nose or cheek; very rarely the inferior maxillary branch is involved, and the lesions are distributed over the chin.

The peculiarity of the eruption of zoster, which is pathognomonic, is that it is confined to one side or half of the body. Popular tradition says that if the eruption extend so as to reach around the entire trunk, the disease proves fatal; the reason for this superstition rests on the fact that ordinarily the eruption cannot thus extend, because it occupies only well-defined nerve tracts, which extend only to the median line on either side. In very rare cases there is a simultaneous occurrence of zoster in two regions, and two distinct eruptions may then be observed on the same side of the body, or on opposite sides; if by chance these should occur at the same level, the body might be encircled, as has been observed a number of times. As a rule, herpes zoster occurs but once during life, but cases have been recorded where it has recurred; in one instance as often as nine times in the same individual.

Etiology.—The immediate exciting cause of zoster is probably exposure to cold, but there seems to be some reason to believe that there is a deeper causation, which at times renders the disease almost an epidemic. Certain it is that numbers of cases will often be observed in close succession or at the same time, and then a considerable interval may elapse before other cases are met with. As previously stated, the skin lesions are the direct result of nerve inflammation, involving the posterior or sensory root of the spinal nerves; they have also been observed as a result of injury of nerve trunks by disease or otherwise.

Diagnosis.—The markedly one-sided character of the eruption, the pain, the hyperæthesia of the region, and the flat, grouped vesicles are quite sufficient to distinguish this from all other eruptions.

Prognosis.—This is usually good, the eruption generally quite disappearing within two weeks. But sometimes the neuralgic element is very severe, and may persist indefinitely.

Treatment.—Although zoster is a self-limited affection, treatment may be of considerable benefit in shortening the duration of the eruption and lessening the distress from it. Internally, phosphide of zinc with nux vomica (Formula 82) given as early as possible, and repeated every three hours, diminishes the pain and appears to shorten the attack; also antifebrin, in five-grain doses, repeated, with care, even

every two-hours. The internal use of the citrate of iron and quinia in large doses, and also arsenic, freely given, every two hours, seem to be of service.

Locally, the greatest relief is obtained by the application of a muslin band, thoroughly dusted with starch, and sewed firmly around the affected portion of the body, the diseased surface being first dusted also with powdered starch, to which a little morphia may be added. This muslin is applied to the part in such a manner as to make a tight covering, upon which the clothing rests, and is left untouched until the eruption has disappeared. The comfort afforded by the protection from friction which this gives is very great, and ordinarily no other local treatment will be required; flexible collodion, containing a little morphine, painted over the part, also makes a comfortable dressing. Care should be taken not to make any applications or treatment which break the vesicles, otherwise very troublesome sores may result. If the pain is sharp, considerable benefit may be experienced from the use of the galvanic current, the negative pole being applied with a moist electrode over the affected surface, and the positive on the spinal column; a mild current, from four to eight cells of a battery of ordinary strength, is all that is required. In some cases electricity will be required for a period after the disappearance of the eruption, to combat the excessive neuralgic pain which remains.

2. **Dermatitis herpetiformis.** Synonyms: *Dermatitis multiformis; Hydroa herpetiforme; Pruriginous polymorphous dermatitis; Duhring's disease.* This is a chronic, inflammatory eruption, of nervous origin, exhibiting multiform lesions, with a marked tendency to grouping, accompanied by itching. The disease has only been isolated during the past ten years, largely through the efforts of Duhring, and embraces many cases which heretofore were classed as *eczema, pemphigus pruriginosus, hydroa,* and other conditions; the true relations of the affection are not yet fully established, but many observers are satisfied that it exists as an entity.

The eruption exhibits many different phases and symptoms, and may at times present wheals, papules, vesicles, pustules, and even bullæ of some size; but itching is always a marked and troublesome feature. It may affect any portion of the surface, and is very apt to be symmetrically developed.

There is no constant form in which the eruption appears, and the lesions will sometimes develop and change in the same case, from time to time, or may remain much the same throughout any one attack; for the disease is very liable to recur again and again, or to present marked exacerbations.

The first appearance is very apt to be in the erythematous, or urticaria-like, form, often accompanied with some papules or vesicles, more or less grouped; sometimes blisters of considerable size will

appear almost at the outset, or there may be pustules. With the eruption there will always be the intolerable itching, causing, in addition, lesions due to scratching. The lesions are very apt to leave pigmented marks, and sometimes superficial cicatrices.

Etiology.—Little is known as to the etiology of this rather rare disease; of 38 cases recorded among the 20,000 analyzed, 30 were observed between the ages of twenty-five and fifty; in all there were 16 males and 22 females. While most patients appear to be in fair health, there is generally the history of nerve strain or shock.

Diagnosis.—It is often very difficult, and even impossible, to establish a definite diagnosis in very early stages. The disease may be mistaken for many others, *eczema*, *erythema multiforme*, *herpes zoster*, *pemphigus*, *phthiriasis*, *pruritus*, *scabies*, *syphilis*, and *urticaria*. The tendency to grouping of the lesions, and the intensity of the itching, often out of proportion to the eruption present, are always features to be looked for in dermatitis herpetiformis; in older cases the pigmentation, with the history of recurrent attacks, emphasizes the diagnosis.

Prognosis.—This should always be guarded, as the eruption is exceedingly rebellious, and is very apt to recur.

Treatment.—This must vary considerably with the case, and there is no one remedy or plan of treatment

which is successful. There is often an insufficient action of the kidneys, and great benefit is then obtained from the acetate of potassa and rumex mixture (Formula 63), to which an ounce of Warburg's tincture may be added. Most cases require very decided neurotic treatment, and mixtures with iron, arsenic, strychnia, etc. (Formulæ 64, 65, 66, 69), are of service. When the vesicular or bullous element is pronounced, arsenic may be used with advantage, pushed even to great extent, every two hours. Cod-liver oil is also often needed, together with the best possible hygienic conditions and a regulated dietary, rich in fats and phosphates.

The *local treatment* relates largely to such measures as soothe an irritated surface and control the itching. For the more inflamed conditions a lotion with calamine and zinc, or magnesia (Formulæ 26, 27, 28, 30), is very serviceable; for the pruritus, ichthyol, either in water (Formula 47) or in oil, affords great relief, also the liquor picis alkalinus, well diluted (Formula 44). On localized patches the permanganate of potassium, ten to twenty grains to the ounce of water, painted over the surface and allowed to dry on, is very effective; also certain of the vegetable antipruritics (Formula 35). Ointments are of less value, but those with ichthyol, sulphur, carbolic acid, tar, etc., are often of service (Formulæ 93, 95, 109, 111, 113).

3. **Pruritus.** Itching occurs both as a symptom

of many diseases of the skin, and also as an independent affection, either confined to definite areas, or affecting the entire surface. It is in the latter sense that the term *pruritus* is here employed, to indicate a functional disturbance in the sensory nerves, exhibited alone as itching, without any apparent changes in the skin except those caused by scratching, or by the means employed to give relief.

PRURITUS HIEMALIS.—This name is given to an itchy condition of the skin which occurs principally in winter; generally beginning in the autumn, and increasing with the cold, it continues until the advent of warm weather. It may return year by year, and sometimes is the occasion of the severest suffering, the pruritus being generally aggravated toward night. The chief places of itching are the extensor aspects of the arms, the inner surfaces of the thighs, and the calves of the legs; in a case which has lasted some time, numerous scratch-marks will be seen.

PRURITUS SENILIS is the name applied to the tendency to itch which exists upon the senile skin, and which is dependent in a measure upon the atrophy taking place in the structure of the skin in elderly persons.

PRURITUS VULVÆ.—This will cause the patient to rub and scratch the parts violently in efforts for relief, without seeming to reach the seat of difficulty; often, on examination, nothing will be seen but a chafed and dry surface, the result of rubbing.

PRURITUS SCROTI and PRURITUS ANI may also occur unconnected with other diseases, and give very great distress, no skin lesions being presented. While, however, itching may occur idiopathically in the region of the anus and genitals, it is more commonly found to be only a sign of a more or less slightly developed eczema, which may have existed unrecognized for years.

Etiology.—No single cause can be assigned for pruritus; it is a functional affection due very frequently to other elements than those existing in the part itself. Pruritus of the vulva is often associated with uterine disease, or with irritating vaginal secretions. Pruritus of the anus may arise from intestinal worms, and, together with pruritus of the scrotum, is often dependent upon oxaluria; sometimes it is due to the use of coffee or tobacco, and sometimes it is reflex, from stricture of the urethra. The most careful investigation should therefore be made, and every possible means employed for correcting all aberrations from health.

Diagnosis.—Considerable care should be exercised in differentiating pruritus as a disease from pruritus as a symptom; itching is a feature of very many diseases, and when lesions on the skin are seen, other than those caused by scratching, their real nature should be determined accurately. Itching may occur as a symptom of *eczema, dermatitis herpetiformis, lichen, phthiriasis, prurigo, psoriasis?,*

scabies, seborrhœa, syphilis?, tinea cruris (eczema marginatum), and *urticaria.* Prurigo is recognized as a distinct, papular disease, entirely separate from pruritus.

Prognosis.—This must always be guarded, for it will often be impossible to find and remove the cause of pruritus, and local measures often afford only slight and temporary relief.

Treatment.—This must vary with the individual and the case. Diet seems to exercise some influence over pruritus, and all articles which "heat the system" will pretty certainly aggravate the sufferings of the patient. Alcoholic and fermented liquors, also spices and hot drinks, all increase the itching for the time, and probably have more or less influence in prolonging the trouble; tea, when taken in excess, may act prejudicially. Rough underclothing aids in keeping up the irritation, as also the excessive use of friction to the skin, as by flesh brushes; in a number of instances I have observed that those suffering from general pruritus have previously indulged in Turkish baths to excess. General itching is often benefited by mercurial cathartics (Formula 77), followed by nitric acid in full doses; quinine will be of much service when in malarial subjects. Gelsemium internally, as mentioned under eczema, gives relief, and chloral and bromide of potassium with aconite may be required to induce sleep.

Locally, great comfort is experienced in all forms

of pruritus from alkaline baths (Formulæ 1, 2, 3), followed by the application of carbolic acid in ointment (Formula 111). Sponging the surface with carbolic acid lotions with glycerine (Formula 50), or with ichthyol or the liquor picis alkalinus (Formula 44), diluted from ten to twenty times, also lotions with acetic acid and alcohol, gives much relief. Electricity, both the direct and induced current, is often of great service.

In pruritus of the vulva very many local applications will be found of more or less value, and again many may fail utterly. Vaginal injections with borax or chlorate of potassa, two to four drachms, and carbolic acid, half a drachm or more to the pint of *hot* water, are frequently of great value; likewise lotions containing borax, morphia, belladonna, aconite, conium, and hydrocyanic acid (Formulæ 29, 35, 49). An ointment composed of camphor and chloral (Formula 113) also gives relief in many instances, likewise ointments containing ichthyol and tar (Formulæ 93, 114).

Care must be exercised in attempting to relieve the itching not to excite inflammation of the skin; it not infrequently happens that stronger and stronger agents are employed, until an artificial eruption is excited, which is very distressing and delays the proper treatment. Many of the measures of service in eczema are equally applicable in pruritus.

4. **Dermatalgia.** Pain confined to the skin is a rare affection, but is occasionally met with. The skin is generally sensitive to light pressure, but the positive neuralgic pain, which may last or be quite transient, is sometimes relieved on deep, firm pressure; no visible signs of disease are noticed externally. Very little is known with regard to its causation, and little with regard to its treatment. Like other neuralgias, it indicates a lowered nerve condition and calls for powerful nerve tonics and arsenic; locally, galvanism gives considerable relief.

5. **Hyperæsthesia cutis.** Excessive sensibility of the skin is a condition seen in hysterical and nervous patients, and also as an accompaniment of certain diseases of the brain and spinal cord. The patient complains of very considerable pain or distress from even slight contact of the skin with the air, bed-clothes, etc. The condition is to be treated upon general principles.

6. **Anæsthesia cutis.** Diminished or absent sensibility may exist in the skin, either generally or as a local manifestation. It commonly has connection with internal causes, and is observed in leprosy, and also not infrequently during the early, eruptive period of syphilis, as analgesia or loss of sensibility to pain; when it exists in syphilis a pin may be thrust through a fold of skin without causing pain.

As a local manifestation it occurs as the result of injuries or diseases of certain nerves or nerve centres.

7. **Dystrophia cutis.** Synonyms: *Atrophoderma neuriticum; Trophic changes in the skin.* This term is employed to designate certain changes which occur upon the skin as trophic disturbances, due to disease or injury of certain nerve trunks. There have been quite a variety of lesions described as thus dependent, a number of them having been observed during the Civil War in connection with gunshot and other wounds of nerves. The most commonly known form is the erythematous state or "*glossy skin*," seen after injuries of nerves; in this, a part, as one or more fingers, will become red, glossy, and shrunken at their ends, with an atrophic condition of the nails, as a result of injury of a nerve trunk in the arm. In certain cases where the nerve injury has been severe and prolonged, vesicles may develop, and in certain other instances distinct gangrene of the skin has resulted from profound nerve injury.

No particular line of treatment can be marked out for these cases, as this must be conducted on general principles, and little can, as a rule, be done to modify the skin lesions present.

CHAPTER XI

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY DISEASES

THIS great class, which includes a large share of the diseases of the skin ordinarily met with, has two general subdivisions: (A) those affections which are induced by *contagion* or *infection;* and (B) those of *internal* or *local* origin. Eleven different diseases are met with in the first, and twenty-five in the second group.

A.—Induced by Infection or Contagion

The first group embraces those which have generally been known as the exanthemata, such as measles, scarlet fever, and smallpox, together with certain others whose positions will be defined later. Some of these will be very briefly alluded to, inasmuch as they belong more properly to general medicine than to dermatology; but they are all introduced here because they are at times of very great interest from a diagnostic point of view. Syphilis appears in this group for reasons which will be explained later.

1. **Rubeola.** Synonyms: *Measles; Morbilli; Rougeole; Masern.* Measles is an acute, infectious disease, exhibiting inflammatory or febrile phenomena, accompanied by symptoms of mucous irritation, and the appearance upon the body of a maculo-papular eruption. The eruption of measles is of a mottled character, consisting of patches of a dull red or raspberry color, showing considerable tendency to assume crescentic shapes.

In from one to two weeks after exposure there occur languor, back-ache, running from the nose, sneezing, and coughing, with congested eyes. After about four days, the eruption appears, first upon the forehead, then upon the cheeks and neck, and so on down, until by the end of the third or the fourth day it has covered the body, and is fading from the hands. By the end of the fourth day of its completion, or the eighth day of its appearance, all traces of the eruption are generally gone except a moderate scaling, of a branny character.

Diagnosis.—The diagnosis of measles is usually not difficult, as the general and catarrhal symptoms point to its true character. In certain cases, however, it may resemble other eruptions, namely, *scarlatina*, *rubella* (or German measles), *roseola*, and the *erythematous syphilide;* also, possibly, *smallpox*, the eruption from *copaiba*, and that from *quinine* or other drugs, and finally certain cases of scattered *erythema*, and superficial *erythematous eczema.* The eruption

which is sometimes called *black measles* is undoubtedly, in most if not all cases, hemorrhagic smallpox, under which name it will be described.

Treatment.—The patient should be put to bed, and kept in a warm and even temperature until some time after the complete disappearance of the eruption. The diet should be light and unstimulating; broth, milk, and warm drinks should be given at first until the eruption is fading. Little or no internal treatment is necessary, although it may be required to meet complications. There is little doubt but that inunction, or greasing the surface, is of much benefit, both in measles and in scarlet fever, and should be generally practised; it gives great comfort to the patient, reduces the fever, and diminishes the danger of communicating the disease. It is very readily accomplished with cosmoline or with almond oil. A good method, common among many, is to soak a piece of fat bacon in water, in order to remove the salt, and then, placing it in the oven and allowing it to melt a little, to rub it well over the body. This may be repeated night and morning or oftener.

2. **Rubella.** Synonyms: *Rötheln; German measles; Epidemic roseola.* This name is applied to an acute, infectious disease, exhibiting hyperæmic, red blotches, often very closely resembling those of measles, but less sharply and clearly de-

fined, without the tendency to assume the cresentic shape; the eruption is also more irregular in its course and development than that of true measles, and is not accompanied by the coryza and the indications of mucous irritation observed in the former, though it is often associated with some throat symptoms. The stage of incubation ranges from ten to twelve days. There is but little constitutional disturbance, and patients are often up and around during its entire continuance; it is not infrequent in adults. The rash more often resembles that of scarlatina than that of measles; it may, however, be of much shorter duration than either of these affections, and in light cases disappears within two or three days after its first manifestation, with little if any scaling. The eruption is liable to be confounded with those mentioned in connection with measles.

The *prognosis* is always favorable, and generally no treatment whatever is required. The disease is supposed to be moderately contagious; it certainly very frequently appears as a mild epidemic, and that more frequently during a time when measles or scarlatina are prevalent.

3. **Scarlatina.** Scarlet fever is a far more serious disease than either of the two preceding, and occasionally proves terribly fatal. The period of incubation is not definitely fixed, and may vary between

two and twelve days; the sickness usually commences with more or less of a chill, often with vomiting, headache, sore throat, and general prostration. The eruption appears on the second day of the fever, first upon the face and then spreads rapidly down the chest and reaches the lower extremities on about the third day; shortly after this it is at its height, and by the fifth or sixth day begins to decline; by the ninth or tenth day desquamation is well established and proceeds for a week or more. The rash has a peculiar scarlet color, whence the name of the disease; in the beginning it is punctate, but when at all general it forms more or less of an evenly reddened surface, hot and tense. The desquamation is much greater than in measles, sometimes large patches of epidermis being thrown off.

The other symptoms always form a striking portion of the disease, and may prove very serious, the sore throat being a prominent and often dangerous feature. The tongue is coated in the middle, but red at the end, and covered with prominent papillæ; the fever runs high, and the sufferings of the patient are generally very great.

Diagnosis.—This is usually not very difficult if the entire history of the patient, and the character and course of the eruption, are taken into consideration. Certain cases may resemble *measles*, and the eruptions mentioned in connection with that disease. There is also a punctate form of *erythema* which closely

resembles the eruption of scarlatina, but is unaccompanied by the constitutional symptoms; it is more uncertain in its distribution, and does not pursue the regular course followed by scarlatina, but may desquamate and considerably resemble the rash of scarlatina in this respect; it is very apt to appear most markedly on the wrists and abdomen. The eruption from *quinine* and other drugs may also simulate scarlatina.

Prognosis.—This is always doubtful. Cases vary greatly in their severity; some are so moderate as to hardly seem to require the patient to go to bed, while others are lethal at the outset; others still are fatal after a long continuance of the disease. After the eruption has entirely disappeared the dangers are by no means past, for the sequelæ of this affection are among the most serious known. The kidneys are almost always affected to a greater or less degree, and if care be not taken the foundation of serious renal disease may then be laid; the dangers in this respect are peculiarly great during the period of desquamation. Other sequelæ, such as ear disease, paralysis, etc., may also give great trouble.

Treatment.—The proper and complete treatment of scarlatina cannot be here discussed. Mention, however, may be made of the very great value of inunction practised several times daily, as described under measles, or with compound lanolin ointment

(Formula 112) with the addition of one or two per cent. of carbolic acid; this aids materially in modifying the fever, giving comfort to the patient, and protects others from infection. The greatest care must be exercised to prevent the spread of the contagion of scarlatina; disinfection cannot be too complete.

4. **Variola.** Smallpox is an acute infectious disease characterized by a pustular inflammation of both the cutaneous and mucous surfaces. The period of incubation varies from six to twenty days. The patient then feels languor and lassitude, with shivering, pains in the back, limbs, and head; there is often nausea, with vomiting, constipation, and general distress; the pain in the back may be very great.

After about two days of these symptoms small red points appear, first upon the forehead and about the mouth, then upon the rest of the face; this soon extends to the neck and arms, then down the trunk to the lower extremities, and the entire body may be more or less affected by the end of twenty-four or forty-eight hours. These little points, which are diffused, small, and red, soon become conical and shotty; and by the next day a minute vesicular point may generally be observed upon them. Within the next two days they enlarge, become indented or umbilicated, and their contents, which are

at first transparent, become whitish and milky. By the sixth or seventh day the contents appear as pus, and the vesicles become of a darker color, and begin to show signs of drying, which by the seventh or eighth day is quite apparent. As the eruption develops, the febrile symptoms lessen, and the patient may be comparatively comfortable when the skin is most affected. By the eighth day the eruption has attained its height on the parts first attacked, namely, about the face, and is less and less marked toward the toes. Thus many phases of the eruption are present at the same time.

About the period when the eruption has attained its height, the secondary or suppurative fever occurs, and continues several days, until many of the pustules burst, or dry into scabs and crusts. The entire process of the formation and separation of the crusts may not be completed before the twentieth day or even later.

There are various forms or varieties of smallpox mentioned, which it is not necessary to dwell particularly upon. When the separate pustules occur thickly together, a large, extended surface may be involved in one mass of inflammation, forming *confluent smallpox*. When smallpox appears in those who have undergone vaccination, it is generally in a greatly modified variety, and is hence named *variola modificata* or *varioloid*.

In certain cases the disease assumes a terrific form

known as *variola maligna*, or *hemorrhagic smallpox*, which often passes under the name of *black measles*. Here the eruption does not exhibit the typical appearance, but the surface may have a dark, purplish color from extensive capillary hemorrhages, and only the greatest care will demonstrate any papules or vesicles upon it. The course and development of this form are varied, but the disease generally proves fatal; the intensity of the poison seems to disintegrate the blood, it exudes through the capillary vessels everywhere, and hemorrhages from the mucous membranes in all portions of the body occur, which are often frightful in character. The patient seldom survives the fifth day, and may die by the third, and the eruption rarely displays any of its ordinary features.

Diagnosis.—When the disease is fully developed it is not difficult to recognize, but in mild, sporadic cases, and very early in its course, it may readily be mistaken for other eruptions. The *papulo-pustular syphiloderm* frequently resembles it very closely; it is also occasionally quite difficult to distinguish between mild cases of smallpox and *varicella;* in the very earliest phases the eruption may resemble *measles, scarlatina, acne, papular eczema,* and some forms of *erythema.*

Prognosis.—The prognosis of smallpox depends greatly upon the case, and no brief statement can be made with regard to it. In milder cases it is

almost invariably good, while more severe ones not infrequently prove fatal.

Treatment.—The measures to be employed also vary very greatly with the case. The disease being self-limited, no particular remedies are required to meet it, but the patient must be managed according to the indications occurring from time to time.

The most important dermatological point is in regard to the possible prevention of the disfigurements which so often result, the much-dreaded "pitting" of smallpox. Various methods and plans have been advocated from time to time for its prevention, all in the main having the same end in view. The cause of the cicatrices which so frequently occur is undoubtedly found in the ulcerations which result from disturbing the pustules during their normal course; upon those parts of the body where they are not interfered with, the scarring is generally slight, if it occurs at all, so that if the pustules were left undisturbed they would oftener run their course without causing much if any destruction of skin tissue. The plan, therefore, which secures protection of the surface from friction and irritation, and which modifies the inflammatory action, is that best suited to accomplish this end. For this purpose the eruption should be kept covered with some bland application of a mildly astringent character, calculated to soothe and diminish the congestion of the surface. This is found in such applications as

vaseline, or better still in a very weak zinc or calamine ointment (Formulæ 89, 90, 92) carefully spread upon the face. If there is itching there is no objection to the addition of a little tar or carbolic acid or five per cent. of ichthyol to the ointment, as used for eczema. If greasy applications are not agreeable a lotion may be used, as that of calamine, or others which contain a protective powder (Formulæ 26, 27), which may be allowed to dry upon the skin; a small amount of carbolic acid may be added to this if there is much itching. It is generally better to exclude the light; care must always be taken that the the crusts are not scratched or torn off too soon, but they should be allowed to take their full time for maturation and suppuration. The severe ectrotics which have been employed have not appeared to yield advantages commensurate with the pain and trouble attending their use, if indeed they have ever succeeded perfectly.

5. **Varicella.** Varicella, or chicken-pox, is a mild, infectious disease, characterized by an eruption of small, isolated vesicles, often irregularly disposed, accompanied by a very moderate constitutional disturbance. The period of incubation ranges between four and seventeen days, and the patient then complains of a little fever and lassitude; but the constitutional symptoms are generally very insignificant, and frequently, among the poor, children are brought

to the out-patient clinics with varicella. Often the first sign of disease noted is the appearance of a few points, which are very quickly converted into small, quite distinct vesicles, which are remarkably transparent, and with but little surrounding inflammation.

The vesicles, which are always of small size, generally appear first upon the face, but frequently attention will be first called to their existence upon the back and chest. Their appearance here is generally very conclusive, and the whole back should always be examined in making the diagnosis. The small spots of inflammation are seen to be oval in shape, diagonally directed; the congestion is very superficial, easily disappearing on pressure, and the whole is surmounted by a minute, clear vesicle, which soon dries into a scab. A peculiar feature of varicella is the successive eruption of the vesicles, which appear in crops, often a hundred or so new spots appearing each night for four or five days. There is usually a considerable amount of itching, and children, if not prevented, will not infrequently tear the surface, and often cause considerable scarring, which need not take place if the eruption is undisturbed. The vesicles may come on any and all parts of the body, and I have seen a permanent scar left on the eyelid by a varicella vesicle.

Diagnosis.—The most common disease with which varicella is confounded is *smallpox* in its milder forms; the regular progress of smallpox from above

downwards, compared with the irregular and successive development of the elements of varicella; the superficial character, oblong shape, and quick vesication of the latter, compared with the inflammatory papule of variola, proceeding to suppuration; together with the general symptoms of smallpox, should suffice to distinguish them. The only other lesions which could be mistaken for chicken-pox are an acutely developing *papular syphiloderm*, which sometimes vesicates, and a *multiform erythema*, which may at times present small or large vesicles, and possibly *sudamina*.

Prognosis.—This is invariably good, unless the patient suffer from some great complication.

Treatment.—The mildest laxative and diaphoretic treatment renders the patient more comfortable, but no remedies can alter the normal course of the disease. Some care should be exercised to prevent those with varicella from scratching the face, and a mild zinc ointment with a few drops of carbolic acid in the ounce (Formulæ 89, 90) will assist in allaying any irritation and preventing scarring.

6. **Vaccinia.** This is an acute, infectious, vesicular disease of the cow, which when communicated to man (usually in the process of vaccination) protects from smallpox.

The process and results are familiar to all, and it does not come within the scope of the present writing

to enter on the subject, except from a dermatological point of view.

Three accidents attending vaccination may be mentioned; fortunately they very rarely occur, and in the vast majority of instances the process progresses normally, the sore heals, and little or no sensible effect is produced upon the patient's life or health.

VACCINAL SYPHILIS.—Groups of cases, and also separate instances, have been reported, which demonstrate that the syphilitic virus has been and can be conveyed in the process of vaccination; but compared to the numbers vaccinated, the cases of syphilitic inoculation are infinitely rare. The progress of the disease is the same as when it is otherwise acquired, and the same phenomena may be manifested, unless interrupted by treatment. The vaccination sore may take fairly and exhibit sufficiently well the characters of vaccinia. Within two weeks, however, the site of insertion of the virus hardens, and refuses to heal, and is transformed into a *chancre*, which, unless properly treated, may last several weeks longer, and the evolution of constitutional syphilis follows, as described elsewhere.

It is not yet absolutely determined by what methods the syphilitic poison is conveyed; some have held that the vaccine lymph, if taken perfectly clear, cannot transmit syphilis. It is pretty certain that the intermingling of blood from a syphilitic

in an active stage of the disease, renders the giving of syphilis probable; how far pus, epithelial débris, etc., as existing in crusts from vaccine vesicles, will convey syphilis, is not yet decided. Safety lies in the use of good animal virus when possible, or in the securing of only perfectly clear lymph, from a healthy vaccinifer. The possibility of conveying the disease by other means, as by a foul lancet, or soiled fingers, etc., must never be forgotten; it could also be conveyed from mucous patches, through the saliva, if used to moisten vaccine matter, which improper practice is sometimes indulged in.

VACCINAL ERYSIPELAS.—Sometimes in addition to the very considerable amount of inflammation which may accompany vaccination, an erysipelatous action will take place, which may spread to very considerable extent, and prove a troublesome complication. Generally it remains confined to the arm, but in rare instances may extend to the body. I have seen this occur more frequently after the use of bovine virus than from perfectly healthy humanized lymph.

FURUNCULAR INFLAMMATION.—Besides a deep inflammatory action, which may involve the cellular tissue and leave much scarring, it happens that in persons of a lymphatic temperament, or in those much run down, a furuncular state is developed, which may sometimes be the cause of very great

trouble; in certain rare cases the purulent infection seems to go further, and cutaneous abscesses occur elsewhere. In some instances a more superficial pustular eruption appears, *impetigo contagiosa*, which may then be communicated to others.

Other than the above-mentioned states, disease cannot be communicated by vaccination. Eczema, or even psoriasis, may be excited in one predisposed thereto, but they cannot be communicated from one person to another by this means, nor is it proved that any disease except syphilis can be thus transferred.

In regard to the vaccination of persons suffering from diseases of the skin, it may be stated that if carefully done, and if the sore is properly guarded afterwards, little if any harm can result; as a rule it is not well to vaccinate one suffering acutely from eczema, but in a sub-acute or chronic stage it may be successfully practised without influencing the disease prejudicially. In those with irritable skins it is always well to employ the recently introduced vaccination shields, to prevent undue violence being done to the pock.

CHAPTER XII

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY DISEASES—(*Continued*)

A.—Induced by Infection or Contagion—(Continued)

7. **Syphilis.** Synonyms: *Pox; Lues.* Syphilis is a chronic infectious disease, exhibiting a variety of inflammatory and neoplastic lesions (which may affect every organ of the body), pursuing a more or less definite course, and capable of transmission by inheritance; as a rule it can be acquired but once during a lifetime. It is placed here among the diseases induced by infection or contagion, because it resembles those previously described, in its nature and also in many of its earlier lesions of the skin and mucous membranes; the later manifestations are to be looked upon as its sequelæ.

Syphilis is one of the most important diseases which affect the human race, and the value of a quick recognition of its every phase, together with a careful, proper, and thorough treatment, cannot be overestimated. Syphilis occurs in an individual in only one of two ways, by *inheritance* or by *contagion;* and, although the exact mode and time of

acquisition is sometimes difficult to determine, there can be no question but that the disease is always one and the same, transmitted in one way or the other, and never developed *de novo*. The subject of the acquired disease will be first considered, and inherited syphilis will be treated of subsequently.

The primary lesion of syphilis, or point of entry of the virus into the system, is called a *chancre*, known also as an *initial lesion*. It is also spoken of as a *hard sore*, from the commonly observed hard or parchment-like induration often accompanying it, in distinction from the soft sore, or chancroid, which latter is a local affection, contagious, but not capable of infecting the system. The period at which the chancre may make its appearance after inoculation is uncertain, varying from ten to almost one hundred days, but is generally about two weeks; in contrast to this stands the chancroid, which has an incubation of but a few days, or even hours.

The initial lesion of syphilis may vary considerably in appearance, according to the location, health of the patient, amount and activity of the poison imbibed, etc.; in its earliest phases it is often difficult of recognition. The points to be considered are, the occurrence of a sore, generally single, ten days or more after sexual exposure, its slow development, comparatively innocent appearance, and scanty and serous secretion, together with a painless enlargement of the lymphatic glands in the neighborhood;

these features will generally contrast strongly with the early appearance, rapid increase, and rather abundant, purulent secretion from chancroidal inoculation; this latter often exhibits multiple sores, angry in appearance, and is early accompanied by painful, general swelling about the inguinal glands of one side.

By the end of a week slight induration can often be made out in the chancre, but sometimes it is delayed very much longer; it may be a striking feature, or may be difficult of recognition. The abrasion may often be very insignificant, and hardly noticed by the patient; this is especially the case in women.

Chancres may affect any and every part of the body, and extra-genital chancres have been observed in almost every possible locality. While the most common mode of acquiring the disease is by impure contact, it is often communicated in ways which are quite innocent. Among the various methods by which the disease has been accidentally acquired, may be mentioned the processes of vaccination and circumcision, also those of tattooing and skin-grafting; it has also been communicated by a bite, and in the act of kissing, likewise during nursing; and physicians, nurses, and midwives have acquired it in the discharge of their duties. The means of conveying the poison from one individual to another are almost as numerous as the objects of common life. It has been passed from one to another on the glass-blower's pipe, also

by means of smoking-pipes and cigars; surgical instruments, lead-pencils, tooth-brushes, drinking and eating utensils, toys, etc., have all been reported as the agents by which individuals have been infected.[1]

The important point to remember in connection with this is, that however or wherever the poison enters, the result is always a *chancre;* the system is not affected in any gradual or occult manner, but invariably by the direct introduction of the poison at some particular place, and at that place a sore results, which is the first stage of syphilis, the *primary lesion.*

The period at which the secondary lesions may manifest themselves is somewhat uncertain. After the appearance of the chancre, a second interval of incubation occurs, during which the sore heals, and the patient may be in apparent health. But very soon symptoms of lassitude come on, often with considerable headache and pains in the limbs, and shortly the entire surface is found to be covered with a congestive eruption, which may present one of several forms, macular, papular, or pustular. In conjunction with this eruption there is a general enlargement of the lymphatic glands, and more or less sore throat of a superficial form, and possibly iritis. The patient is now ushered very completely into what is known as secondary syphilis.

MACULAR SYPHILODERM.—Synonym: *Syphilo-*

[1] *Syphilis in the Innocent*, New York, 1894.

derma erythematosum. This, the wrongly called *syphilitic roseola*, is the most common form, and occurs earliest after infection, often within the first or second month, and occasionally entirely escapes the attention of the patient. It consists of a thickly set, slightly marked eruption of congestive blotches, of irregular shape and size, mostly small, seeming to be slightly elevated; the color is of a pinkish red, giving to the skin a mottled look. In searching for it the abdomen and back should be examined, and the eruption becomes more visible after a little exposure to the air.

Diagnosis.—The diagnosis is quite easy when all points are considered; the eruptions with which it might be confounded are *rubeola*, *rubella*, the eruptions produced by *copaiba* and *quinine*, also possibly some rare cases of *erythema multiforme* and *urticaria*, and the parasitic eruption *tinea versicolor*.

PAPULAR SYPHILODERM.—Synonyms: *Syphiloderma papulosum; Syphilitic lichen?* Various forms of the papular eruption of syphilis are seen; sometimes it follows directly upon the preceding, oftener it is that which is first observed. The entire body, head, and limbs may be the seat of a fine papular eruption, thickly set, with a moderate tendency to scale after some days' duration. Or, the papules may be larger, and even of irregular size, some as large as a split pea, others the size of large pinheads. In other instances fine papules will be

grouped around a larger one, or the entire eruption of smaller or larger papules may be arranged more or less in circular or crescentic form. Still another variety is seen in the large, flat papular syphiloderm, whose elements may even reach the size of a large finger-nail, and become more or less covered with a light, moderately adherent scale. The color of the papular eruption of syphilis is far more pronounced than that of the macular; and when it has lasted any length of time, it assumes a deep red, coppery tint; on disappearing brownish stains are left, but no scars. The papular eruption very commonly affects the palms and soles at the same time.

Diagnosis.—The large, flat papular eruption is more frequently confounded with *psoriasis;* the finer papules also resemble somewhat *papular eczema, lichen, lichen planus,* and *lichen scrofulosus.*

VESICULAR SYPHILODERM.—This very rare eruption seldom exists alone, and belongs to the early stage of the disease. The vesicles are usually in groups and more or less symmetrically developed. The only eruption which could be mistaken forit is *dermatitis herpetiformis,* and in this the itching is a most striking feature, while it is absent in the syphilide.

BULLOUS SYPHILODERM.—This is also a very rare manifestation of syphilis, and in the acquired disease is only seen in broken-down subjects. In hereditary syphilis it is not so uncommon, and is

quite often met with on the palms and soles of infants, as will be mentioned later.

PUSTULAR SYPHILODERM.—Synonyms: *Syphiloderma pustulosum; Syphilitic impetigo* and—*ecthyma?* The pustular eruptions of syphilis are usually later than those just described; they may follow them either after or without treatment, or may seem to be the first manifestations of constitutional syphilis. The pustules may be small and pointed, or flat, and generally crust over very soon; they are apt to remain some time, and on fading, frequently leave small, depressed, brownish scars, which disappear slowly. The larger form of the pustular syphilide sometimes assumes a formidable appearance; the crusts may become large and heaped up, constituting what was formerly known as *syphilitic rupia.* This leaves considerable scarring, which is permanent.

Diagnosis.—The pustular eruptions of syphilis may resemble *pustular eczema, scabies,* the eruption from *lice,* and that induced by *iodide* and *bromide of potassium.*

TUBERCULAR SYPHILODERM.—Synonyms: *Syphiloderma tuberculosum; Tubercular syphilide; Syphilitic lupus?* The tubercular syphilitic eruption belongs to the later stages of the disease, and is often spoken of as a tertiary lesion. It consists of one or many solid formations in the skin, generally about the size of a split pea, roundish, and of a brownish-red color. They are seldom seen in great

numbers, and never over the whole surface; they are usually grouped together and may coalesce, generally forming circles or segments of circles. Occasionally the disease will travel over a large surface (*serpiginous tubercular syphilide*). Ulceration takes place in the tubercles very readily, and they are often covered with crusts, though they may also only scale over and become absorbed without ulceration; the tubercular syphilide almost invariably leaves a permanent scar.

Diagnosis.—This eruption of syphilis most resembles *lupus*, from which it is, however, to be carefully differentiated; the designation "syphilitic lupus" is wrong; lupus is a disease entirely distinct from syphilis. Certain cases may also resemble *epithelioma* and *sarcoma*, also the eruption of *leprosy*.

GUMMY SYPHILODERM. Synonyms: *Syphiloderma gummatosum; Syphilitic gumma; Syphiloma; Syphilitic lupus?* This is one of the latest manifestations of the poison, and occurs principally in broken-down subjects. It consists often of a single mass of moderately firm substance, of varying size, originating from the sub-cutaneous tissue, and sooner or later ulcerating through the skin. Beginning very small, it may remain for weeks without attracting much attention, but when it begins to ulcerate the destruction may be deep and extensive, attacking bones and joints. Gummy deposits of *syphiloma* may also form in internal organs, and may destroy life.

Diagnosis.—Cutaneous gummata may be mistaken in their early stages for *fatty* or *fibrous tumors*, enlarged *lymphatic glands*, and *sarcoma;* when ulcerating, they may resemble *simple* and *varicose ulcers*, also *lupus*, and *epithelioma.*

PIGMENTARY SYPHILODERM.—This is an alteration in the coloring of the skin, which is occasionally seen, mainly upon the neck and almost invariably in women; the reasons for these peculiarities in the eruption have never been explained. The skin appears of a darker color, a yellowish brown, and upon this there occur numerous white spots, separate or touching one another, as though a white surface had been stained, and then finger-marks had been made upon it, showing the white beneath. This pigmentary alteration occurs during the first or second year of the disease, and is not the result of previous lesions; it is quite different from the coppery-brown stains left by many syphilitic eruptions.

Diagnosis.—The pigmentation most resembles *leucoderma;* it is to be also differentiated from *tinea versicolor*, and *chloasma.*

MUCOUS PATCHES.—Synonyms: *Condylomata; Plaques muqueuses.* These are moist lesions found upon mucous membranes or upon parts where two surfaces of skin come in contact and are softened and macerated; they are seen on the lips and in the cavity of the mouth, about the anus and genital region, beneath the mammæ, between the toes, etc.;

they may occur at any period of syphilis, but are more common during the earlier stages. They differ somewhat according to the situation; within the mouth they are superficial, of a grayish-white color, with a raw appearance, often as though a coarse network had been stretched over a denuded surface; about the genitals they are more exuberant, of a reddish color, and raised even to the height of a line above the surrounding skin. The surface of mucous patches gives off a glairy secretion which is intensely contagious.

Diagnosis.—In the mouth these lesions are to be differentiated from *simple* and *aphthous stomatitis*, also from the white patches commonly seen in smokers (the *leucoplakia* or wrongly called *psoriasis buccalis*), and from *eczema* of the mucous membranes. In other locations, as about the anus and genital region, some care must be taken to exclude the ordinary *vegetations* or *venereal warts*, which have no connection with syphilis.

SYPHILIS OF THE PALMS AND SOLES.—Synonyms: *Palmar and plantar syphiloderm; Syphilitic palmar psoriasis?; Psoriasis syphilitica?* During the early stages of syphilis, the palms and soles may be involved in the general eruption, which will here partake of the ordinary characters, and need not be difficult of recognition. But later in the disease, even as long as twenty years after infection, these parts may be affected alone and give trouble in

diagnosis. The lesions seen then are papules or tubercles, which are arranged in groups or circles, or parts of circles, and the surface is denuded of epidermis over them, often causing painful fissures. Late in the disease only one extremity may be affected; during the earlier period of syphilis the eruption is apt to be symmetrical.

Diagnosis.—The lesions in this situation may be mistaken for *eczema* and *psoriasis;* the latter should be excluded at once if well-marked psoriasis is not found elsewhere, as it almost never occurs on the palms or soles without appearing on other parts at the same time. The diagnosis from eczema may at times be very difficult. It is to be remembered, however, that the lesion of syphilis is always composed of separate papules or tubercles, while the eruption of eczema spreads peripherally in an even surface; as a result, the margin of the syphilitic eruption will be sharply defined and scalloped or uneven, and the separate elements can always be made out; the eruption also is worse at the margin and with a tendency to clear in the centre, exactly the reverse of what is seen in eczema.

HEREDITARY SYPHILIS.—When syphilis is inherited, the child escapes the primary lesion, and the poison is in some way instilled into the system with life; a child born healthy may, of course, acquire syphilis while passing through the mother's

parts, or at any time afterwards, as by nursing an infected wet nurse, or otherwise; it then has *infantile* but not *hereditary* syphilis, and the disease begins with a chancre. The mode in which syphilis is communicated to the offspring has never been accurately determined; it may be acquired directly from the father alone, although many have doubted it; the woman can readily communicate the disease to her offspring during the earlier stages of the disease, and may continue to bear diseased children for years after her infection. Syphilis is a very common cause of abortions, and, operating still further back, can cause sterility.

Inherited syphilis may manifest itself during intrauterine life, and the child be born with an eruption, erythematous or bullous. Or, as is more commonly the case, the child comes into the world apparently healthy, but soon fails in strength, and after about three or four weeks exhibits a weazened "old man appearance," has snuffles, and shortly the surface to a greater or less extent is covered with a maculopapular eruption, of a dusky-red color. The mouth becomes sore from mucous patches, which also appear about the anus; the palms and feet often present bullæ. When the eruption is plentiful the child often sinks and dies in spite of all treatment; if there is but a sparing amount it may improve rapidly under treatment, and regain apparent health.

If the child survives and recovers from the erup-

tion, it is still liable to the effects of the poison in the form of bone and eye disease, and even many years later may have tubercular and ulcerative lesions of the skin, and exhibit peculiar changes in the permanent teeth; these are most marked in the front upper incisors, they being peg-shaped, notched from side to side, and thickened.

As stated in the definition, syphilis may affect any or all of the organs of the body, and it may even destroy life; the limits and scope of the present work forbid entering more fully into the subject.

Treatment.—While mercury may be rightly considered an antidote for syphilis, it is to be used with discretion, and often is efficacious only in proportion as all other measures are rightly employed with it. Hygiene is of the greatest importance in syphilis.

Authorities are divided in regard to the propriety of giving mercury for the primary sore, but no one who has seen much syphilis can deny that the induration melts away far more rapidly with than without mercury. For many reasons, however, it is advantageous to wait until the diagnosis is established with certainty, otherwise a non-syphilitic sore which has healed while under mercury might be wrongly considered an initial lesion of syphilis. There is little if any use of cauterizing the chancre lightly, as often practised; if attempted at all, it should be done very early and very thoroughly, as

with fuming nitric acid; about the best local application is the black-wash (Formula 53), kept freely applied on lint, renewed several times daily; dry calomel is also a good application, or a mixture of equal parts of calomel and aristol. A valuable method is by means of the emplastrum mercuriale (Formula 19), spread on linen and closely applied.

In the earlier stages of syphilis iodide of potassium is of very little use, and mercury only need be given. This may be administered in a number of ways, by the *mouth*, and also through the *skin*. Blue mass is largely used internally, and should be given just short of salivation, until the teeth are slightly tender, the action on the bowels being checked by opium if necessary. One of the best methods of treatment is by means of one-grain tablets of mercury and chalk, given every two hours, six to ten or even more being taken daily. Bichloride of mercury, in pill or solution, so that from one-twentieth to one-eighth of a grain is taken, three times daily, is preferred by many, while others use the bi-cyanide in the same doses. The proto-iodide of mercury is one of the most valuable preparations, and was a favorite with Ricord.

Through the *skin* there are three methods of introducing mercury: by inunction, by vapor baths, and by hypodermic injection. Inunction is usually performed with the unguentum hydrargyri U. S. P., diluted one-half with vaseline, rubbed alternately into the insides of the thighs and the sides of the chest,

to the amount of from half a drachm to a drachm of the pure ointment once or twice in the twenty-four hours. The staining from the "blue ointment" may be obviated by employing the oleate of mercury, in twenty per cent. solution, with an equal quantity of vaseline; the oleate is rather apt to irritate the skin.

Mercury may also be introduced satisfactorily by means of mercurial vapor baths; these may be given at public establishments, but are also readily administered at home. The patient sits naked on a chair, beneath which is placed a lamp having a dish over it partly filled with boiling water, with a little cup on it containing half a drachm of calomel, or a drachm of the black oxide. A couple of blankets are thrown over the patient, and tucked in tightly over the chair, and the lamp lighted; the duration of the bath should be about half an hour, during which the patient should perspire freely; the effect of the bath may be heightened by opening the blankets and inhaling a little of the mercurial fumes. It is well not to dry off the skin, but to get into bed either still enveloped with the blankets, or with a flannel night-dress.

Hypodermic injections may be of service when rapid and sure effects are desired; the corrosive sublimate is frequently used (Formula 118), and may be employed daily in doses of about one-eighth of a grain.

In the later stages of syphilis, even six months after infection, the addition of iodide of potassium, forming what is known as the "mixed treatment," undoubtedly hastens the disappearance of the symptoms, and contributes much to the patient's well-being. To be most serviceable the mercury and iodide of potassium should be combined with iron and tonic remedies (Formula 67). Syphilis being a disease tending greatly to debility, a tonic treatment, both as to diet and hygiene, as well as medicine, should be ever aimed at.

Very late in the disease, when gummy tumors exist, or when serious brain symptoms threaten, iodide of potassium may be required in much larger doses, and should be pushed to almost any amount necessary to cause the symptoms to yield. When the iodide of potassium cannot be taken, that of sodium and ammonium may be used, or iodine given in the compound tincture of iodine, or as iodoform, or the iodide of starch may be employed. But it is never to be forgotten that a little mercury may be required even very late in the history of syphilis, and, as a rule, less of the iodide is needed when mercury is used.

In regard to internal treatment a few general directions may be of service. Mercury if properly used does not do harm, but good, and all the popular fears about the drug remaining in the system and causing subsequent trouble, are wholly groundless;

when used as directed, and for syphilis, it is surely a tonic. It is never necessary really to salivate, and although this accident sometimes happens, it should be sedulously guarded against. To this end the mouth and teeth should be kept clean, and the state of the gums watched; the slightest tenderness of the teeth on biting should excite suspicion. The mercury should then be lessened or stopped, and chlorate or permanganate of potassa be used freely as a gargle, and, if necessary, belladonna or atropine given internally.

The treatment of syphilis should be continued long after the disappearance of all symptoms; best authorities place the entire duration of treatment at two years, at the least.

Infantile and hereditary syphilis are best treated by means of inunctions, with mercurial ointment diluted once or more, rubbed in and worn on a flannel binder; tonic treatment should also be used as required. Gray powder also answers well, and I have seen excellent results even in small infants from the "mixed treatment" (Formula 67), modified by substituting a wine of iron for the other ingredients besides the mercury and iodide. Later lesions of the bones do very well on the syrup of the iodide of iron, but it should be pushed.

Little need be said in regard to the local treatment of the eruptions of syphilis. Generally little is called for; if any be required, it is commonly such as would

be indicated by a similar lesion not due to syphilis. For obstinate tubercular eruptions the emplastrum hydrargyri (Formulæ 19, 20) is of service; scaly eruptions on the hands are much benefited by the application of the oleate of mercury in five or ten per cent. solution. Calomel in ointment, half a drachm or a drachm to the ounce, is often valuable, or ammoniated mercury (Formula 98); and where there is much pain and unhealthy discharge from ulcerating gummata, aristol alone or in ointment, fifteen to forty grains to the ounce, is of service. A compound ointment of mercury, iodine, and lead (Formula 102) is valuable in old palmar syphilis, and also in syphilitic tumors.

8. **Pustula maligna.** Synonyms: *Anthrax maligna; Charbon; Malignant pustule.* This is the result of inoculation of the poison from animals with splenic fever, or *charbon;* inoculation takes place through abraded surfaces, the specific cause being the presence of the *bacillus anthracis.* After a very brief incubation a small, dark-red induration occurs, which soon vesicates, and rapidly becomes a pustule, followed by a slough. The sore becomes gangrenous, severe constitutional symptoms appear, and death may result in a few days.

The *treatment* consists in the destruction of the inflamed point with powerful escharotics at the earliest possible moment; the separation of the slough

is to be encouraged by charcoal or peroxide of hydrogen poultices, and attention is given to sustaining the life powers of the patient.

9. **Equinia.** Synonyms: *Farcy; Morve; Glanders.* This rare affection originates from contagion, due to a *bacillus*, derived from a similar disease in the horse. In this animal it is characterized by inflammation of the nasal cavity, leading to swelling and ulceration, with a purulent discharge; later the lymphatics become involved, and swellings may appear in various parts, which ulcerate and discharge fetid matter.

In man there is first inflammation about the wound or scratch where the poison gains entrance, and lymphatic inflammation, accompanied by prostration and rheumatic pains; soon the nasal cavity is inflamed and a bloody purulent secretion occurs; very shortly a more or less general pustular eruption appears, first on the face, somewhat resembling smallpox, but in reality being more tubercular, and with a subsequent vesiculation or pustulation, and showing a rapid tendency to ulceration.

The *prognosis* is almost always bad, the disease frequently proving fatal in about a week.

There is no *treatment* established other than such as is indicated by the conditions present.

10. **Diphtheritis cutis.** Under certain circumstances the skin may become the seat of diphtheritic

membrane, wherever there has been any abrasion; even eczematous surfaces are said to become thus covered. In very rare instances it is stated that a vesicular eruption occurs in the disease, and the vesicles, taking on the membranous formation, may coalesce, and large surfaces of disease be thus formed.

11. **Erysipelas.** This is an inflammatory disease of the skin, more commonly of the head and face, always attended with fever of greater or less severity, generally commencing with a chill, and accompanied with considerable prostration. The skin becomes swollen, red, and shiny, with a burning sensation, and is tender to the touch; the eruption may spread very rapidly until a large portion is involved. In certain cases the disease travels over much of the surface of the body, disappearing in one portion as it moves on; thus the process may be repeated several times. This is called *erysipelas migrans*, wandering or migratory erysipelas.

The real cause of erysipelas is a micro-organism, the *streptococcus*, which gains access through some abraded surface; the disease is transmissible by contagion, also through the air, as when surgical wards of a hospital become infected, so that every wound is attacked by the disease.

PSEUDO-ERYSIPELAS.—There are again a certain number of instances where an erysipelatous eruption appears again and again on the face, generally on

one side, creeping over the nose, so as to cover the middle portion of the face in a few days; there is some malaise and fever, but the condition is rarely very severe. These cases are generally observed to be associated with nasal catarrh, and the process seems to be excited by lymphatic absorption from ulceration within the nasal cavity; these I have looked upon as distinct from true erysipelas, and non-contagious.

ERYSIPELOID.—This curious condition, generally appearing on the fingers and toes, and creeping along with a pretty sharply defined erythematous border, has really nothing to do with real erysipelas, although it is probably due to an infection with a micro-organism not yet determined. There is more or less itching and burning with it, but no constitutional symptoms.

Diagnosis.—Erysipelas should not be confounded with any other eruption, when the constitutional symptoms and the character of the lesions as described are taken into consideration. But many cases of *erythematous eczema*, especially on the face and legs, are often wrongly called "*chronic erysipelas*," as also cases of *acne rosacea*. *Herpes zoster* was also formerly confounded with erysipelas, which accounts for some of the varieties described in older books as vesicular and bullous erysipelas; while the inflammation of erysipelas may occasionally result in an indefinite raising of the epidermis by fluid, this

is really very rare. *Erythema* is differentiated by the absence of constitutional symptoms, by its more superficial character and more rapid course, and by the absence of desquamation later.

Treatment.—A sharp purge (Formula 77), followed by very free and oft-repeated doses of the tincture of iron, together with thorough powdering of the surface with flour, will very commonly be all that is required. Ichthyol sometimes seems to exert almost a specific controlling influence, and may be used in ointments, or in solutions in water or oil, in a strength of from ten to twenty-five per cent., and even painted on in full strength.

The hair is usually lost after erysipelas of the head, but under proper treatment for alopecia it regrows perfectly, without the necessity of shaving the scalp.

CHAPTER XIII

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY DISEASES—(*Continued*)

B.—Of Internal or Local Origin

THIS group contains many of the most common and troublesome diseases of the skin, twenty-five in number. No attempt is made at an etiological arrangement, but they are grouped according to the gross lesional aspects belonging to each affection. The *nine* sub-groups correspond largely to those of Willan. Some of the eruptions here placed are of local origin; most of them are from internal causes, many of which are as yet undetermined.

I. ERYTHEMATOUS ERUPTIONS

Three diseases are found here, (1) *roseola*, (2) *erythema*, and (3) *urticaria*, all characterized by a very superficial, congestive, or slightly inflammatory redness, disappearing momentarily on pressure.

1. **Roseola.** This is the most superficial of cutaneous inflammations, presenting often only a transitory redness, hardly more than a hyperæmia, although in some cases the lesions may last several

days. The term has been variously applied by writers, both to idiopathic rashes, and to those symptomatic of, or belonging to, other affections; thus we hear of *roseola variolosa*, *roseola vaccinia*, *roseola cholerica*, *roseola syphilitica*, etc., referring to fugitive congestive eruptions seen in smallpox, vaccinia, cholera, syphilis, and other diseases.

The term *roseola* is here used to represent an idiopathic eruption of rose-colored papules or small patches, diffused more or less completely over the whole surface, and not that connected with other disease states, such as mentioned above. There is generally slight constitutional disturbance, restlessness, and fever. The causes are temporary digestive disorders; it is most commonly seen in infants. The older designations of Willan, *roseola æstiva*, *—autumnalis*,*—annulata*,*—infantilis*, etc., are quite unnecessary.

Diagnosis.—This must be made from *scarlatina*, *measles*, *rubella*, the *erythematous syphilide*, and the eruptions caused by the internal administration of *copaiba*, *quinine*, *belladonna*, etc.

Treatment.—Little or nothing is required beyond slight attention to the digestion and action of the bowels; the condition is very fugitive.

2. **Erythema.** Three varieties of erythema are recognized in the classification, (1) *erythema simplex*, (2) *e. multiforme*, and (3) *e. nodosum*.

ERYTHEMA SIMPLEX.—This is characterized by the presence of a patch or patches of evenly reddened surface, an inch or more in diameter, of various shapes, a little raised, slightly hot to the touch, and disappearing momentarily on pressure. The condition is often a transitory affair, lasting a single day; sometimes the patches remain longer or recur repeatedly. The causes of such congestion of the skin are many and varied, both external and internal: heat, cold, local irritants, and also reflex and autotoxic congestions.

ERYTHEMA MULTIFORME. — Synonym: *Erythema exsudativum.* Polymorphous erythema is a very curious and often puzzling affection. It includes several conditions, namely: *erythema papulatum, e. tuberculatum, e. annulare* or *e. marginatum*, and *e. vesiculosum* or *e. iris;* that is, while the real lesion is spoken of as an erythema, the process may be so severe that papules or raised rings are formed, and the congestion may even be so great that fluid exudes and vesicles or bullæ form. With all of these, larger erythematous patches of various shapes are often observed, quite appreciably raised, hot to the touch, and attended with burning sensations. The hands and forearms are almost always most severely affected, also the backs of the feet and the thighs, the eruption being commonly symmetrical; the face is usually involved. There is generally some malaise and more or less fever. The disease

may be prolonged several weeks, with repeated accessions of lesions, each of which remains some time, and is not evanescent, as in urticaria.

The disease is an angio-neurosis, commonly produced by auto-toxins, and is not very uncommon among immigrants, after the derangements incident to confinement on shipboard.

ERYTHEMA NODOSUM.—Synonym: *Dermatitis contusiformis.* This is often described as a separate disease, distinct from the preceding forms of erythema; but, while it generally presents quite characteristic features of its own, it is also seen in less marked degrees, and in forms which so resemble the multiform eruption previously described, that there can be little doubt as to their relationship. It is most commonly seen in children.

When characteristically developed, the eruption is in the form of rounded, more or less elevated, node-like blotches, which are reddish at first, but with a tendency soon to become darker colored and to fade to a yellowish hue as they disappear, within a week or so of their development. They are more commonly developed on the extensor aspects of the limbs, but may appear elsewhere; they are accompanied with burning pain and are tender on pressure; unless injured they never suppurate, and the affection is usually a mild one, although it may be prolonged by successive crops of eruption.

Diagnosis.—Erythema simplex may be mistaken

for *erysipelas* and *erythematous eczema.* Erythema multiforme at times resembles *urticaria, papular eczema,* and *lichen planus,* while the gyrate forms may be mistaken for *ringworm.* Erythema nodosum may be confounded with *bruises* and *cutaneous abscesses,* and, when occurring only over the tibiæ, the swellings resemble *syphilitic nodes.*

Treatment.—Very little medication is called for in any of the forms of erythema, except when the multiform variety is due to nervous depression, in which case the most careful treatment will be required. Ordinarily a little stomach and bowel derangement will be discovered, and rhubarb and soda (Formula 62) will generally correct this; when more severe, such a mixture as that of magnesia and iron (Formula 59) will be found serviceable. Locally, protective powders (Formulæ 83, 84, 85, 86), or astringent lotions (Formulæ 26, 27, 28), assist in allaying the cutaneous hyperæmia.

3. **Urticaria.** Synonyms: *Nettle rash; Hives; Cnidosis; Febris urticata;* German, *Nesselsucht;* French, *Urticaire.* This is characterized by the sudden appearance of flat, solid, slightly elevated blotches called wheals, which are irregular in size and shape, and are either reddish or paler than the normal skin. The eruption is always accompanied by irritation of a pricking, stinging, or burning character, which is often worst just before its appearance.

The individual spots generally last but a short time, from a few hours to a day, and the eruption may be acute and consist of one or a few outbursts, or it may be chronic with the continual or frequent reproduction of the wheals. The spots may vanish as suddenly as they appear, or may subside slowly. One variety, to be described, leaves a small, solid papule in its centre. There is usually stomach or bowel disturbance, a coated tongue, and, if the attack be sudden, a little headache and even fever.

Several forms of urticaria are spoken of.

ACUTE URTICARIA.—This generally arises from acute gastric disturbance, often from irritating ingesta, as stale fish, fruit, mushrooms, etc. There is a general sense of fulness, the entire skin seems hot and tense, and shortly a greater or less development of wheals takes place, accompanied by most distressing burning and itching. Sometimes the congestive process goes so far as to cause exudation from the vessels, and blebs may result, *urticaria bullosa.*

CHRONIC URTICARIA.—This form is often developed insidiously; the patient may seem to enjoy good health, but is tormented with the continual formation of wheals and irritation of the skin, which is generally greatest after meals. In persons having this tendency there is often a general sensitiveness of the skin, so that the least irritation will produce white elevations bordered by pink; in this way a name can be written on the skin with a blunt point

(*dermatographia, autographism*). In certain cases the urticarial attack will come on at a regular time of day, or even on alternate days, and is found to depend upon malaria, and to be broken up by efficient doses of quinine.

URTICARIA PAPULOSA.—This is sometimes wrongly called *lichen urticatus*, because of the lichenoid papules which are left after the subsidence of the wheals. It is most commonly seen in children, and often the only visible eruption will be scratched papules, with a faint halo around them.

URTICARIA TUBEROSA.—Occasionally the swellings of urticaria assume some size, even to almost that of half an egg, forming *giant urticaria*. When the urticarial swelling takes place about the face considerable deformity may be produced; sometimes the tongue is affected, and the patient may be almost choked.

URTICARIA PIGMENTOSA.—A very curious and rare condition has been described under this name to which Tilbury Fox once gave the name of *xanthelasmoidea*, because of the resemblance of the patches which are left by it to the yellow patches of xanthelasma. The earlier development is in the form of wheals like ordinary urticaria, which on subsiding leave yellowish, slightly elevated patches, which remain for a long time; the cases have been mostly in very young children, and accompanied with much suffering.

Diagnosis.—Ordinarily urticaria is easily recognized by the history, and the presence of the wheals, but often these may be entirely absent at the time of observation; it may be mistaken for *erythema multiforme*, and the papular variety often resembles *scabies* and also *papular eczema.*

Prognosis.—An acute attack, as from mushrooms, stale fish, etc., occurring for the first time, may pass off readily; or it may be the beginning of a chronic condition; the chronic form often proves most rebellious.

Treatment.—Where an irritating substance may reasonably be supposed to be yet in the stomach, an emetic should be given; almost always a moderate purgative is of service at the beginning of treatment, as calomel and jalap, or blue mass (Formula 77), and the laxative effect may be kept up by moderate use of rhubarb and soda, or magnesia (Formula 62). In more chronic cases the greatest care must be paid to the diet and hygiene, and every possible source of ill-health removed. Especially must the excretion from the bowels and kidneys be cared for; aloes and iron (Formula 78) aids the former excellently, and alkaline remedies (Formulæ 60, 61, 63) are generally called for; in chronic cases mineral acids are of most service (Formulæ 66, 68).

The *local treatment* is of considerable importance; first, all irritating elements must be removed, as flannel next the skin. Alkaline baths (Formulæ 1,

2, 3) are of great value, with the subsequent application of carbolized ointments (Formula 111); when there is much liver disturbance acid baths are of most value (Formula 5); salt-water baths are also good. Ammonia spirits relieves the itching, also lotions with acetic acid, and alcohol, also belladonna, aconite, and carbolic acid (Formulæ 35, 50). On exposed parts much relief may be obtained by calamine and zinc lotions (Formulæ 26, 27, 28), and chloral and camphor in powder or ointment (Formulæ 87, 113) assist greatly.

II. PAPULAR ERUPTIONS

There are two distinct eruptions whose characteristic lesion is recognized to be a papule, namely, (1) *lichen* and (2) *prurigo*.

4. **Lichen.** Lichen is characterized by the presence of inflammatory papules, of various sizes and shapes, though generally small, which preserve their character to the end, and are accompanied by marked itching. The name *lichen* has been variously used and abused, but at present is applied with tolerable unanimity to three or perhaps four conditions which resemble each other, if indeed they are not closely related; these eruptions differ so much that their separate consideration is necessary.

LICHEN SIMPLEX.—In this the papules are pointed and hard, with a redness which disappears moment-

arily on pressure; they may be scattered, or gathered together in groups, and generally affect the extensor surfaces of the limbs, and also the body. The eruption may very readily be confounded with papular eczema. When grouped together the term *lichen circumscriptus* has been used. *Lichen tropicus*, or prickly heat, has already been described as a congestive affection of the sweat glands. *Lichen agrius* is an old term for aggravated lichen, and the cases to which this name was given are now generally recognized as eczema. *Lichen urticatus* has just been treated of, as urticaria papulosa. *Lichen pilaris* is not a true lichen, but an epidermal hypertrophy, and will be described as *keratosis pilaris*.

LICHEN PLANUS. — Synonyms: *Lichen ruber planus; Lichen-psoriasis*. The papules in this are sharply defined, about a line in diameter, flat on top, and often slightly depressed in the centre, of a purplish pink-color, and shiny on the surface. They appear quickly and increase to the size mentioned, and will often remain for a very considerable time, resisting treatment; they may run together, forming patches of some size. They more commonly appear first on the wrists and backs of the hands; in rare instances the glans penis may be first affected. There is sometimes great itching, often it is slight.

LICHEN RUBER, as described by Hebra, is almost unknown in this country; the papules here are more acuminate, and tend to crowd together, and gradu-

ally involve large areas. The disease is a serious and rebellious one, often endangering life.

LICHEN SCROFULOSORUM.—This is in reality lichen simplex occurring in strumous subjects. It is characterized by reddish or yellowish papules, more or less grouped, and usually covered with greasy scales; the skin is commonly inactive and dry; there is little itching. The eruption is rare in this country.

Diagnosis.—All the forms of lichen may be mistaken for *papular eczema* and *urticaria papulosa*, also for the scattered *papular syphiloderm;* great care will often be necessary in differentiating the eruption from *scabies*. Lichen planus sometimes resembles guttate *psoriasis* and *erythema papulatum*.

Prognosis.—Acute lichen generally yields readily, as also lichen scrofulosus; lichen planus often proves obstinate, and true lichen ruber is often fatal.

Treatment.—The treatment of lichen is essentially that of eczema, and need not be fully detailed. Both internal and external measures are required; alkaline tonics and baths are especially valuable. Arsenic, when pushed very vigorously, will often control lichen ruber, and is of service in chronic cases of lichen planus; in acute conditions it aggravates the disease. Lichen planus often yields very well to chlorate of potassa, five to ten grains in water, after meals, followed half an hour later by two to five drops of strong nitric acid, well diluted.

5. **Prurigo.** The distinction must be clearly made between *pruritus* and *prurigo;* the former is a subjective symptom, namely itching, which accompanies many eruptions, such as eczema and scabies, and which may also occur idiopathically, and thus constitute a disease, as already described. Prurigo represents a papular eruption of peculiar character, accompanied also by itching, which is usually intense.

The name *prurigo* has been very vaguely applied, and many older writers thus designate the eruption caused by lice, which is now known as *phthiriasis* or *pediculosis.* The terms *prurigo podicis* and *prurigo scroti* are also met with, used wrongly to designate an itching eruption of the anus and genital region; most of these cases are eczema, others simply pruritus; prurigo does not affect these portions alone. Again, others have applied the term prurigo to papular urticaria, known also as *lichen urticatus,* already described; and others speak of *prurigo senilis,* to indicate the *pruritus* which attends the changes in the skin incident to old age.

As understood by dermatologists to-day, prurigo is characterized by the development of numerous, small, solid papules deep in the skin, either of the color of the integument or of a pale-red, and attended with great itching. The papules are the primary lesions, and until torn in scratching exhibit little or no inflammatory element; when recent, they are felt rather than seen, although they project

slightly above the surface. The original seat of their appearance is the extensor surfaces of the limbs; as later features we have their more or less general development, with harshness and pigmentation of the skin, enlarged lymphatic glands in the groins, and exhaustion from constant irritation.

Diagnosis.—This eruption in a severe form, such as is seen in Vienna, is a very rare one in this country, although cases of *papular eczema* and *urticaria* often simulate it very closely. But in a milder form it is occasionally met with among the poor, especially in children; here a large portion of the surface is moderately covered with an eruption, papular in character, with many scratched points, and a dry, hard surface; true prurigo is said always to begin in childhood. It resembles very closely *urticaria papulosa*, but its papules occur without the existence of wheals; it also resembles *scabies*. This milder form in children corresponds to what has been described by the French as *strophulus prurigineux*.

Prognosis.—Always very doubtful.

Treatment.—This relates largely to general measures, looking towards a perfect restoration to health, which is always lowered in these patients. Kidney and bowel secretion should be attended to, and iron, cod-liver oil, the phosphates, etc., are given. Arsenic has only a moderate effect, but carbolic acid, freely given internally, has been said to control the itching in a measure. Local treatment is very important;

alkaline baths (Formulæ 1, 2, 3, 4), followed by a carbolized ointment (Formula 111), are of value; also tarry preparations, as the alkaline tar solution (Formula 44), diluted to a strength sufficient to give relief ; likewise oil of cade freely applied, pure or diluted, with cod-liver or linseed oil (Formula 45), also ichthyol (Formulæ 46, 47).

III. VESICULAR ERUPTIONS

But two names appear here, namely (1), *herpes* and (2) *pompholix*, because, although vesicles are observed in several other diseases, in these alone the vesicle is a constant pathognomonic sign. This herpes is distinct from herpes zoster or zona, which has already been described as a neurosis because of the constant pathological nerve change found in it.

6. **Herpes.** Herpes is an acute inflammatory affection, whose characteristic lesion is a group or groups of flattened vesicles, seated on an inflamed and sensitive base. Four varieties are recognized: (1) *herpes febrilis*, (2) *h. iris*, (3) *h. progenitalis*, and (4) *h. gestationis*.

HERPES FEBRILIS.—Synonyms: *Herpes facialis; Herpes labialis.* This relates to what are commonly known as " cold sores " or " fever blisters," occurring most frequently about the mouth and lips; the eruption is also occasionally seen elsewhere on the

face, and inside the mouth, and even about the anus. The phenomena of burning and a little pain are familiar to all; very little is known of their significance, but they often indicate stomach derangement. In certain rare cases a general eruption of febrile herpes has been observed (*herpés généralisé fébrile*), attended with considerable malaise, headache, and fever.

HERPES IRIS.—Synonyms: *Herpes circinatus; Hydroa?* This is a comparatively rare eruption, and is closely allied to erythema multiforme, if indeed it is not to be looked upon as a phase of it. The eruption is characterized by the occurrence of vesicles in circles around a central one; sometimes several develop in succession and a series of concentric rings of vesicles may be observed. These cases have sometimes been described as *herpes circinatus*, a term more commonly applied to ringworm, or *tinea trichophytina*, a parasitic disease.

HERPES PROGENITALIS.—Synonym: *Herpes preputialis.* In this the small groups of flat vesicles form and rupture very quickly, so that there is usually presented only a raw surface, which may readily be mistaken for venereal lesions. The eruption is most apt to appear on the prepuce, but may also come on the glans and body of the penis, also on the female labia. The superficial and grouped character of the vesicles, abrasions, or ulcerations, and their sudden appearance after a little burning

pain, should distinguish them. Thier course is short, and in a few days, if uninjured, they crust over and disappear. They are certainly seen most commonly in those who have had gonorrhœa, and it is believed by some that they are caused by reflex irritation from stricture of the urethra.

HERPES GESTATIONIS.—This curious eruption, as the name implies, belongs to the pregnant state. During the later months of gestation, generally after the seventh, sometimes beginning with the fifth month, excessive itching begins upon the extremities, and is soon followed by the development of grouped papules which soon vesicate and may develop into bullæ of some size. The eruption is prolonged by successive crops, and lasts until delivery, when it disappears suddenly, or may be followed by an outburst three days or so after parturition.

Diagnosis.—This should not be difficult. Febrile herpes may resemble *mucous patches;* herpes iris could only be mistaken for *erythema multiforme*, or *dermatitis herpetiformis;* the herpetic eruption on the genital regions resembles *venereal sores* and also *balanitis;* and herpes gestationis appears like *papulo-vesicular eczema*, or *dermatitis herpetiformis*, which some authors believe it in reality to be.

Prognosis.—All forms of herpes tend to spontaneous recovery; but herpes progenitalis is very apt to relapse, and is important as affording a point of

entry for syphilitic or chancroidal virus; "cold sores" on the lips may also receive infection from mucous patches, and give rise to chancre of the lip. Herpes gestationis is very apt to recur with each succeeding pregnancy.

Treatment.—In most cases little internal treatment is required, other than a cooling laxative, as citrate of magnesia or the mineral waters; in herpes iris a nervous breakdown may be the cause of the eruption, and in this, as in herpes gestationis, strong nerve tonics and arsenic are of much service (Formulæ 64, 66, 69, 70). Soothing and protective lotions and ointments (Formulæ 26, 27, 28, 29, 30, 89, 90) are of value; tannin in ointment (Formula 94) or lotion (Formula 23) assists in warding off herpes preputialis. These raw points should never be cauterized. In herpes gestationis, in addition to cooling lotions and ointments, great relief from the itching may be obtained from ichthyol (Formula 47), or the liquor picis alkalinus (Formula 44) diluted ten to twenty times, more or less, followed by a protective ointment (Formulæ 89, 90, 92).

7. **Pompholix.** Synonyms: *Cheiro-pompholix; Dysidrosis.* This is another eruption of recent definition about which opinion is still unsettled. It consists of an eruption upon the hands or feet of deep-seated vesicles which may sometimes coalesce and form lesions of some size; these are often seated

along the sides and backs of the fingers, and also occur on the palms and about the ankles, very symmetrically. The appearance of the vesicles and blebs is preceded by burning and tingling, and there is little inflammation attending the process; there is also very little tendency for the later development of anything like eczematous surfaces, but the lesions incline to dry up shortly.

Diagnosis.—The eruption resembles *eczema*, and could be mistaken for *scabies*.

Prognosis.—There is a strong tendency to recur in pompholix; separate attacks yield readily.

Treatment.—Arsenic, freely given, has a very considerable control over the eruption, and arrests its development; strychnia, quinia, and nerve tonics, together with cod-liver oil and good diet, form the treatment of most service. In acute attacks a purge and an alkaline tonic (Formulæ 77, 59, 61, 62) give the most immediate relief. Locally, cooling lotions and mildly astringent ointments (Formulæ 26, 27, 28, 94, 103) serve to relieve the condition.

IV. BULLOUS ERUPTIONS

Two affections are thus classed, namely, (1) ***hydroa***, and (2) ***pemphigus***.

8. **Hydroa.** The term *hydroa* is of recent introduction, and its exact use is by no means yet settled.

It is employed mainly to represent a class of cases characterized by the occurrence of bullæ of various sizes, generally small, which can hardly be grouped with herpes, nor yet with pemphigus; the eruption is very apt to recur, and is often associated with the gouty habit. There is room for doubt as to the propriety of making a separate affection by this name, as many of the cases thus reported appear to be related to *bullous urticaria*, *dermatitis herpetiformis*, *erythema multiforme*, *herpes iris*, or *pemphigus*.

The *treatment* is to be guided by the conditions present, and is the same as is of value in similar eruptions.

9. **Pemphigus.** Pemphigus is essentially an eruption of bullæ, and while in many cases they form a striking and almost startling feature, under certain conditions these become so altered as to be hardly recognizable. Two forms of the disease are recognized, (1) *pemphigus vulgaris* and (2) *pemphigus foliaceus*.

PEMPHIGUS VULGARIS may attack any or all portions of the body; different cases differ very greatly in their severity and extent. The bullæ generally develop rapidly, and often blisters of great size form in a day; the contents soon become purulent; there is but little inflammation at the base or around them. In certain cases there is a strong tendency to ulcerate, and each bleb may become

the seat of a diphtheritic-appearing membrane, refusing to heal.

PEMPHIGUS FOLIACEUS.—The appearance exhibited by this eruption, when of any duration, would hardly suggest the bullous character of the disease. The surface presents a raw condition, with numerous, partially attached, thin sheets of epidermis; these have resulted from ruptured bullæ, or from such as have but imperfectly formed. The course of this eruption is most chronic and rebellious to treatment; the patient suffers greatly and finally succumbs.

The term *pemphigus pruriginosus* has been applied to the eruption of herpes gestationis; *pemphigus malignus*, *p. cachecticus*, and *p. gangrænosus* relate to severe cases and lowered vitality.

EPIDERMOLYSIS BULLOSA HEREDITARIA.—This term has been given to an exceedingly rare condition, in which pemphigus-like bullæ develop suddenly wherever the skin is bruised or pressed upon. It is generally developed first in infancy or early childhood, and resists all treatment to check the tendency.

Diagnosis.—Bullæ are observed in a number of affections, *dermatitis*, *hydroa*, *erythema multiforme*, *urticaria bullosa*, *erysipelas*, *pompholix*, *syphilis*, and sometimes in *scabies* and *lepra;* moreover they arise in some persons upon very slight local irritation. But it is to be remembered that the characteristic

lesion of pemphigus is a bulla, whereas in other eruptions this is a secondary matter, and other lesions are present. Pemphigus foliaceus resembles *chronic general eczema* and *dermatitis exfoliativa.*

Prognosis.—This is always grave except in very mild cases.

Treatment.—There is one remedy which has much power over pemphigus, and that is arsenic; given rightly, it is almost a specific. To be effective it must be given with a free hand, given every two or three hours, even in doses sufficient to act on the bowels, or to cause its physiological effects on the eyes and stomach, if the eruption does not yield sooner; it is well administered in Vichy water, and the liquor sodæ arseniatis is preferable to Fowler's solution. Tonics are also called for, and most nutritious diet.

Locally, it is to be remembered that the epidermis forms the best covering for the abraded surface, and therefore if the bullæ are evacuated, as is often necessary to relieve the tense distress, they should be disturbed as little as possible. Evaporating lotions, containing powdery sediments (Formulæ 26, 27, 28, 30, 32), give considerable relief; raw places are to be dressed with soothing ointments (Formulæ 89, 90, 92). When there is itching, ichthyol (Formulæ 46, 47), or the liquor picis alkalinus (Formula 44), diluted ten or more times, gives great relief, either alone or added to other lotions.

V. PUSTULAR ERUPTIONS

Four distinct diseases are placed here, whose characteristic lesion is a pustule; these are (1) *sycosis*, (2) *impetigo*, (3) *impetigo contagiosa*, and (4) *ecthyma*. They are all connected with the presence and effect of pus micro-organisms.

10. **Sycosis.** Synonyms: *Sycosis non-parasitica; Folliculitis pilorum; Mentagra; Acne mentagra; Coccogenous sycosis; True sycosis; Non-parasitic sycosis.* Sycosis is an inflammation around and in the hair follicles, principally of the hairy face, exhibiting pustules, penetrated each by a hair, and accompanied by pain and burning sensations. This disease must be carefully differentiated from *parasitic sycosis*, a form of ringworm often known as "barber's itch," described under parasitic diseases as *tinea trichophytina barbæ*. Sycosis begins with a deep-seated stinging or burning pain, which is shortly followed by the appearance of red points which quickly show signs of pus; later the inflammation becomes more general, the inter-follicular tissue is involved, and a more evenly reddened surface may occur, or even a succulent tubercular or fungoid condition. This latter, however, belongs rather to tinea barbæ or the parasitic eruption of hairy parts.

Sycosis being a peri-folliculitis at first, when pus appears at the surface it has traversed the follicle;

the hair is, therefore, found to be detached and easily extracted from its seat, together with a mass of succulent epithelial cells composing its root-sheaths, which are infiltrated with pus and serum. Another sign relating to the deep-seated inflammation is exhibited in a tenderness when the hairs are seized and pushed in, or lightly drawn on, there being a soreness felt which is quite different from the sensations belonging to other affections. As a result of the thorough involvement of the follicle from beneath, there is not infrequently permanent baldness from sycosis. The most common region to be attacked is the sides of the face, also the chin, and upper lip, but it may also affect any part of the body where there are large hairs.

Etiology.—Although *pyogenic cocci* are undoubtedly present, and act as efficient pus-producing agents, but little is known as to the real causes of the disease, why the almost omnipresent micro-organisms should be operative at the particular time. The eruption often appears quite unconnected with apparent local cause; while it is more common in those who have recently ceased shaving, it is also observed in those who have never shaved, or not for many years, and in those who shave daily; it is not contagious in the ordinary sense of the word, as is the *hyphogenous* or *tinea* form of the eruption. It is often observed in those exhibiting an eczematous habit, and commonly seems to be connected with digestive derangements.

Diagnosis.—Sycosis often very strongly resembles *eczema* of hairy parts; it may also be confounded with *tinea barbæ*, *acne*, and an eruption of *syphilis*.

Prognosis.—This should always be guarded, for the eruption is apt to be most rebellious.

Treatment.—The internal measures are largely those applicable in eczema, with which the disease has close affinity; arsenic often seems to have a controlling influence; when there is much old thickening, small doses of mercury are of service.

The *local treatment* is all-important. First is the removal of the hair; when pustules are formed the hairs in them should be extracted, but if much pain is caused the hairs should not be taken out, the object being only to remove loosened hairs and to permit the escape of pus. Next, the part must, in most cases, be shaved, and that even every day. The operation is painful at first, but is soon preferred by the patient; when only clipped short the stiff hairs irritate the deep portions as they are pressed on in making dressings. The most serviceable application is the diachylon ointment (Formula 103) spread on the woolly side of lint, and bound firmly on the part. If this cannot be worn during the day, it may be wiped off, and an ointment of calamine (Formula 90), to which half a drachm of sulphur may be added, spread lightly on, may be substituted. In the more acute stages it should be treated like pustular eczema, and when more

chronic, stimulant and absorbent applications (Formulæ 20, 99, 101) may be employed.

11. **Impetigo.** In former times many cases of pustular eczema were thus named, but at present a limited and definite application is made of the term *impetigo*, while some observers discard it entirely. Practically, however, cases are met with which exhibit pustules which are peculiar, and do not belong to eczema or to any other recognized condition. The pustules of impetigo are separate, superficial, and small, with a comparatively insignificant amount of surrrounding inflammatory action; they tend to dry into yellow crusts, and, if undisturbed, heal kindly. This eruption is more frequently seen among the poor, and especially among children; it is most common on the face and hands, but may affect any portion of the body.

Diagnosis.—The eruption resembles pustular or *impetiginous eczema*, *impetigo contagiosa*, *scabies*, the lesions accompanying *phthiriasis*, and *pustular syphilis*.

Prognosis.—This is invariably good, if properly treated, but if neglected the pustules may continue to be produced for a long time. Unless greatly irritated and caused to ulcerate, they do not leave cicatrices.

Treatment.—This is essentially that of eczema; with local disinfection (Formulæ 64, 65, 75, 90, 96,

98). The process is inflammatory, and the mildest and the most soothing local measures must be employed.

12. **Impetigo contagiosa.** This eruption resembles ordinary impetigo, but is characterized by the superficial nature of the lesions, which consist of flat vesico-pustules, which rapidly dry into yellow, friable, brown-paper-like crusts. They may be isolated or grouped together, and vary in size from that of a small split pea to that of a finger-nail. Beneath the scabs the surface is moist, and secretes a little pus, and heals without a scar. The most common locations are the face and hands, but any portion may be attacked, it usually spreading from above downwards ; children are most frequently attacked, and sometimes a number of cases occur in a community.

Etiology.—The cause of the lesions is undoubtedly a pus micro-organism—the *staphylococcus aureus*—but probably some other elements are necessary to explain the ready contagiousness and auto-inoculability of the disease. It occurs most strikingly in weak and poorly nourished children.

Diagnosis.—The eruption may be mistaken for *impetigo*, *pustular eczema*, *hydroa*, *varicella*, and a *pustular syphiloderm.*

Prognosis.—The eruption is almost self-limited, running its course in a week or two, if not subjected to irritation.

Treatment.—Mild laxatives and correctives are of service, followed by tonics, as it is seen most commonly in those in a lowered state of health. Locally, only the mildest ointments are required (Formulæ 93, 98); a very weak white precipitate ointment answers best, with a little carbolic lotion (1 : 20) if it does not yield.

13. **Ecthyma.** This is characterized by larger and deeper pustules than those of the preceding eruptions, seated upon a more inflamed base, leaving excoriations and temporary scars; ecthyma differs from a boil in not having a central core of necrosed tissue. The pustules may appear singly or scattered over much of the body; they are highly inflammatory, and often cause considerable pain. Ecthymatous lesions appear in syphilis, scabies, and phthiriasis, but also occur apparently unconnected with definite exciting cause. Ecthyma occurs most commonly among the poor, and is often the result of neglect and filth; scratching and pus infection play a prominent part in its causation and continuance.

Diagnosis.—Ecthyma resembles the large flat *pustular syphiloderm*, also the lesions seen in *scabies* and *phthiriasis*, likewise *impetigo*, *impetigo contagiosa*, and *pustular eczema*.

Prognosis.—The condition generally yields readily to proper treatment, and has little tendency to recur.

Treatment.—Powerful tonic remedies are called

for (Formulæ 59, 64, 65), care being also taken of the emunctories, and that the diet is most nutritious, with the avoidance of stimulants and tobacco. Locally, soothing and slightly stimulant applications (Formulæ 90, 92, 96) are called for, together with perfect cleanliness and antiseptic treatment.

While pus organisms have been spoken of as efficient agents in the production of suppuration, great care must be exercised not to over-estimate the importance of this, local, element of etiology. These micro-organisms are almost omnipresent, and yet suppuration is relatively infrequent: the *soil*, or *condition of the system*, favoring their operation is all-important to study and treat. Many err, as far as practical results go, in devoting too much consideration and effort at anti-septicism in pustular eruptions, and the latter are often unnecessarily irritated by strong antiseptic applications.

CHAPTER XIV

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY DISEASES—(*Continued*)

VI. MULTIFORM ERUPTIONS

WHILE syphilis, scabies, erythema multiforme, and perhaps some other eruptions may be polymorphous, there are but two whose essential character is recognized as such in the classification employed; these are (1) *dermatitis* and (2) *eczema*. These two often resemble each other very closely, but, as will appear later, it is very important that they should be differentiated; simple dermatitis is a local inflammation, entirely due to local irritants or specific internal causes, as in the case of drug eruptions, while eczema is a constitutional affection, in which it is often impossible to trace any local cause for the eruption.

14. **Dermatitis.** This term is employed to designate simple inflammation of the skin from causes which are outside of the economy; these may be either (1) local irritants, or (2) articles taken into the system, as food, drugs, or poisons. The lesions

may be most varied, from the erythematous condition caused by heat or by mustard, to the large bullæ sometimes following the internal administration of iodide of potassium. Six varieties of dermatitis are recognized: (1) *dermatitis calorica*, (2) *d. traumatica*, (3) *d. venenata*, (4) *d. medicamentosa*, (5) *d. gangrænosa*, (6) *d. factitia.*

DERMATITIS CALORICA.—The effects of heat and cold upon the skin vary with the individual and with the degree of caloric; they exhibit various grades of intensity, from the milder sunburn and frosting, to a bullous eruption, or even death of the part.

Here would belong the dermatitis excited by the *X-ray*, which, beginning as an erythematous condition, extends deeply, often causing an ulcerative surface, extremely difficult to heal.

DERMATITIS TRAUMATICA.—Mechanical injury to the skin produces various lesions, from the mild congestive state caused by friction of the clothing, to pustular lesions due to scratching, or abrasions due to violence. The eruptions produced by lice and the itch mite are in reality dermatitis, but are described as *phthiriasis* and *scabies*. What is commonly known as *intertrigo* or *erythema intertrigo* is a local affair due to irritation of the parts by confined and acrid secretions, with friction.

DERMATITIS VENENATA.—Various external irritants are capable of exciting inflammation of the skin, often to a very severe degree; such are arnica,

cantharides, chrysarobin, croton oil, mercury, mezereon, mustard, tartar emetic, thapsia, and other substances used in medicine; also certain dye-stuffs, notably those from aniline and arsenic; likewise certain plants, especially the rhus toxicodendron or *poison ivy* or *oak*, and the rhus venenata, or *poison sumac*. These artificial eruptions at times resemble acute eczema or erysipelas so closely that an immediate diagnosis is almost impossible. The eruption from the poison ivy and sumac is papular or finely vesicular, accompanied with much redness and burning, and the distress from it may be very great. It is usually symmetrical, on both hands and arms, and the face is generally affected, also the male genitals; it is far more common in children, and especially in those of light complexion and hair; often of a group of children of the same or different families the dark ones will escape, while those of fair skin will be affected.

All these artificial eruptions tend to spontaneous recovery, if the cause is removed, and the parts are protected, but in a certain number, thus disposed, eczema will result; in some cases the eruption from poison ivy and sumac will return very readily on each exposure, and instances occur where even riding by the plant when in flower will suffice to excite a fresh attack. The eruption is also sometimes seen in winter, from dried plants gathered with Christmas greens.

DERMATITIS MEDICAMENTOSA.—This term re-

lates to the eruptions produced upon the skin by the ingestion of certain drugs, which at times may assume very grave proportions, especially the lesions produced by iodide and bromide of potassium; many instances of these unusual effects of remedies are on record. The drugs reported as having occasionally given rise to eruptions are as follows: aconite, antipyrin, arsenic, belladonna, boric acid, bromine, cannabis indica, carbolic acid, chloral, condurango, copaiba, cubebs, digitalis, iodine, jaborandi, mercury, opium, phosphorus, podophyllin, quinine, salicylic acid, santonine, sodium benzoate, strychnia, tar, turpentine, and others.

The eruptions caused by drugs vary greatly, from a slight erythema to papules, vesicles, pustules, bullæ, and even fungoid masses, as occasionally seen from bromide and iodide of potassium. At times they resemble very many diseases of the skin; the mottled eruption from quinine and copaiba may be mistaken for measles or the macular syphiloderm; the pustular eruption from iodides and bromides resembles syphilitic and other eruptions, and the hemorrhagic eruption from iodide of potassium can hardly be distinguished from ordinary purpura. The lesions thus produced are liable to such variations that they cannot be detailed here; but, although they are rare effects, their possibility should always be borne in mind, especially if an eruption presents anomalous features.

They are akin to and more or less resemble the transient eruptions sometimes caused by the ingestion of certain articles of diet; thus strawberries, or bananas, etc., will in some persons invariably cause an urticarial eruption, in others only under certain conditions. Stale fish, mushrooms, and various articles of food at times excite erythematous and urticarial conditions of the skin.

DERMATITIS GANGRÆNOSA.—Synonym: *Sphacelo-derma.* Under certain circumstances gangrene affects the skin in circumscribed patches; this may appear to occur spontaneously, or as the result of injury; also from obstruction of circulation, and it may follow lesions of nerves, even those which are far distant. Such are the gangrenous dermatitis of infants, that seen in diabetes, the symmetrical gangrene of *Raynaud's disease*, etc.

DERMATITIS FACTITIA.—In connection with the forms of dermatitis mentioned, *feigned eruptions* should ever be borne in mind, that is, lesions artificially produced by the patient for the purpose of deception. These generally occur in hysterical women, and many authentic cases are on record; the eruption may take the form of bullæ, produced by acids, or abrasions of various degrees. Their true nature can usually be detected, suspicion first arising from their failure to correspond with recognized types of disease.

Treatment.—The indications for treatment of all

the forms of dermatitis are simple, namely, removal of the cause, and protection of the affected parts; there is more danger of doing too much than too little. The eruptions from poison ivy and sumac are sometimes troublesome, as the poison seems to penetrate the skin and the eruption continues some time after what was perhaps a brief contact with the plant. Cooling lotions (Formulæ 26, 27, 28, 53) are most acceptable, followed later by slightly astringent ointments (Formulæ 90, 93). Duhring speaks of the fluid extract of grindelia robusta, diluted thirty or forty times, as the best remedy. The eruptions caused by dyes in gloves, socks, etc., will often prove very troublesome; they are to be treated locally as an acute eczema.

15. **Eczema.** Synonyms: *Salt rheum; Moist tetter; Scall; Milk crust.* Foremost among all the diseases of the skin in importance, both from the numbers affected and the distress occasioned, must always come this ever-varying eruption, eczema. It attacks all classes and conditions, from the cradle to the grave, appears about equally in both sexes, and comprises nearly one-third of all cases that make up statistics; among the 20,000 cases here analyzed, eczema occurred 5,812 times, forming 32.01 per cent. in private and 26.11 per cent. in public practice; probably the real proportion in ordinary private practice is nearer one-half of all skin cases, inasmuch

as many have it without seeking relief from the specialist. The proportion of eczema cases in statistics is gradually becoming less, owing both to more accurate diagnosis, and also to the fact that recent study has isolated a number of diseased conditions, such as dermatitis herpetiformis, lichen planus, dermatitis seborrhoica, etc., which were formerly included as eczema. It will be noticed also that a complete distinction is made between artificial inflammation, or dermatitis, and eczema proper, of constitutional origin.

Eczema may be defined as a non-contagious inflammatory disease of the skin, of constitutional origin, acute or chronic in character, manifesting any or all of the results of inflammation at once or in succession, and accompanied with burning and itching. As further details, may be mentioned the tendency to exude a serous discharge, which stiffens linen and dries into scales and crusts, and in later stages an infiltration or thickening of the skin, which then cracks, producing painful fissures.

It will be seen that eczema is no longer regarded as a vesicular eruption, as formerly, but that its manifestations may be most varied. Among one hundred miscellaneous cases of acute and chronic eczema, not ten instances, if indeed five, would exhibit a single well-marked vesicle when first presented for treatment. The eruption may remain erythematous from first to last, or it may be

papular; in some cases vesicles may be repeatedly formed, or the epidermis may be stripped off very quickly, leaving a raw, red surface; or, pustules may be freely developed, isolated and distinct, or a purulent and discharging surface may become covered with a crust; again, there may be a thickened and reddened tissue, more or less covered with scales. These phases and others will be more particularly described later. It will, however, be impossible to enter into all details in the present compass; the manifestations of the disease are so varied, and its elements of causation so numerous, that even a brief statement of the subject must occupy many pages.*

The earliest local phenomena in eczema are nerve and capillary disturbances, and the skin lesions are to be looked upon as secondary to these; eczema has been rightly spoken of as a catarrh of the skin, and the exudative feature is rarely absent at some period during its course.

There are six general symptoms of eczema, which it is well first to firmly fix in the mind; these are: 1. Itching, pricking, or burning pain; 2. Redness from congestion; 3. Papules, vesicles, pustules, or exudation; 4. Crusting and scaling; 5. Infiltration, or thickening; 6. Fissures, or cracks.

* For a complete study of the disease, the reader is referred to the recent work by the writer on "Eczema and its Management, A practical treatise based on the study of 3,000 cases of the disease"—8vo, pp. 344, Second Edition. G. P. Putnam's Sons, New York.

1. *Itching.*—The most prominent and constant symptom in eczema is the itching, which may be preceded by or give place to a burning pain. In some locations, and in milder degrees of the complaint, the itching amounts only to a disagreeable tickling or pricking, as though a minute insect were beneath the skin, while in other cases the sensation is insupportable, and nothing will allay it but the most severe, deep, and thorough scratching. This symptom of cutaneous irritation is placed first, because of its very great importance in causing and perpetuating the eruption of eczema. Often the itching will appear to be the only symptom, and the lesions will develop after scratching; often, again, some itching will remain after external appearances have subsided. The itching is always worse when the parts are exposed to the air, and worse at night.

2. *Redness from congestion.*—This is an essential element of the eruption, dependent upon the nature of the process; there is almost invariably an elevation of temperature in the part affected. This redness disappears momentarily on pressure; after it has continued some time a yellowish staining remains.

3. *Papules, vesicles, pustules, or exudation.*—Eczema being an inflammatory eruption of a catarrhal type, the exudation takes place in the upper portion of the corium and deeper layers of the rete. If the process goes no further, there is only erythematous

redness, with infiltration or thickening of tissue, and consequent scaling. When the congestion and exudation are localized, small solid papules of plastic matter are formed; if the fluid is more abundant and less plastic, it raises the epidermis, and vesicles result, or pustules when the inflammation is intense or the vitality lowered, which is accounted for by the almost universal presence of pus-cocci; after the diseased patch has been bereft of its normal epidermis, the fluid exudes directly from the surface, and forms the "watering," "leeting," or discharging feature belonging to certain phases of the eruption (*eczema madidans*). In some cases this moist stage occurs almost immediately, the epidermis being shed in a mass.

4. *Crusting and scaling.*—The exudate of eczema, which stiffens and stains linen, has a very strong tendency to dry into crusts and scales. If a discharging surface is left exposed to the air it soon becomes glazed over and dry, in place of being sticky; this coating increases from beneath, and forms scales or crusts of varying thickness. Especially in infants, as in "milk crust," and upon the scalp, the masses may be very great; on removing them the surface is still moist beneath. Another condition of scaliness is seen where, without any previous moist stage, the epidermis is continually shed from a more or less reddened base, as upon the scalp, forming "dandruff," in erythematous eczema.

5. *Infiltration, or thickening.*—This belongs principally to chronic eczema, but is seen more or less in every case; the skin then acquires a hard, leathery condition, and the increased thickness is recognized by comparing a fold of diseased integument with a corresponding portion of unaffected skin. This thickening may extend even through the entire corium, and on the legs simulates *elephantiasis Arabum.*

6. *Fissures, or cracks.*—Closely connected with and dependent upon the last symptom are the fissures, or cracks, which occur in localities where eczematous skin is called upon to stretch and bend, as on the knuckles and palms, behind the ears, and elsewhere. The infiltration of the corium with the products of inflammation renders the fibres, which should be very elastic, dense and hard; and the inflammatory cells, without cohesive power, scattered among the fibres, weaken what strength is left. Sometimes cracks on the ends of the fingers appear to be the only sign of eczematous disease.

In regard to the names given to the varieties and forms of eczema, there has been much confusion, and too great stress has often been laid upon them; the disease is one and the same, although the external manifestations may vary greatly in different patients or even in the same case at different times, and also according to the locality. The

various names which are found in literature connected with eczema amount to nearly two hundred, given mostly to express various features in the eruption. They relate to five elements of importance in the consideration of the disease, namely: 1. The *stage* of the eruption; 2. The *lesion* present; 3. The *location* of the eruption; 4. The *condition* of the diseased part; 5. The *cause*. A sixth group may be made of miscellaneous popular and other names. The actual name employed is of little importance, provided the condition represented be understood, which is very important both for diagnosis and treatment.

The first element to consider is the *stage* or *state* of the existing eruption. Three general divisions may be here made, namely: (1) *acute*, (2) *sub-acute*, and (3) *chronic eczema*. The same case may present each phase, either at the same time in different localities, or at different times.

ACUTE ECZEMA is characterized by heat, burning, and tingling, with redness and œdema, which latter may be considerable where the skin is lax. Shortly papules and vesicles may appear, or the epidermis may be stripped off, leaving a raw, exuding surface; or, the process may remain erythematous to the end. Acute eczema resembles dermatitis very greatly, and it is often impossible to determine the true character at once. If the eruption of acute eczema is protected, or not further irritated, it tends to subside in a few days, but not completely, for the eruption

lingers in a less acute condition, and is apt to pass into the state next described.

SUB-ACUTE ECZEMA refers to a less inflammatory condition, with a reddened, itchy surface, and moderate thickening; the diseased portions may be moist, tending to become scaly or crusted, or they are hard, exuding a glairy fluid when scratched.

CHRONIC ECZEMA.—This term is applied both to an eruption of long duration, and to the condition which usually obtains in old cases; it is characterized by reddened and thickened skin, which itches furiously, and may desquamate freely, or exude if scratched. Where there is motion there is a tendency to fissures, which may be very painful. Itching may be absent in particular cases of chronic eczema.

The lines of demarcation between these three conditions are not well defined, but the distinction between the acute, inflammatory state and the chronic, indolent condition must be remembered, as it is of great importance therapeutically; in the former the mildest soothing and astringent applications are called for, in the latter very severe stimulation may be required.

The second point to be considered is of special importance diagnostically; this relates to the *anatomical lesion* constituting the eruption; and here we may have four varieties or conditions of eruption: (1) *eczema erythematosum*, (2) *e. papulosum*, (3) *e.*

vesiculosum, and (4) *e. pustulosum*. There are also certain other forms of eczema which are commonly recognized, as *eczema madidans*, *e. squamosum*, *e. sclerosum*, and *e. fissum*.

ECZEMA ERYTHEMATOSUM is marked from first to last by the erythema-like character of its lesion; there is always some infiltration, and the surface has a harsh, leathery feel, and may be more or less scaly. This form of eruption is often wrongly called "chronic erysipelas."

ECZEMA PAPULOSUM.—The lesion is here composed of papules, perhaps existing alone, or combined with the former condition, or with occasional vesicles; many cases which were formerly called *lichen* are now recognized to be papular eczema.

ECZEMA VESICULOSUM.—Typical vesicular eczema is comparatively rare, and is generally acute; more commonly the vesicles have already broken down into moist surfaces, or hard patches, when presented for treatment. Where the epidermis is thick, as on the palmar surface of the hand and fingers, the vesicles appear as pearly, or boiled-sago-like points; the burning and stinging are somewhat relieved when vesicles are formed, and often cease when they are torn open and discharge.

ECZEMA PUSTULOSUM.—Synonym: *Eczema impetiginodes*. Here pustules take the place of vesicles, either from the intensity of the inflammation, or from the lowered or strumous condition of the patient

favoring inoculation by *pus-cocci.* As in vesicular eczema, the separate elements are often not visible, that is, there are no distinct, separate pustules, and what is called pustular eczema, as seen in "*milk crust*" in infants, presents a mass of yellow crusts only; many cases formerly called *impetigo* are now recognized as *pustular* or *impetiginous eczema.* Pustular eczema of hairy parts seldom itches much.

These four conditions may be spoken of as the *primary lesions* of eczema. The following terms are used to express the pathological states presented clinically as *secondary* to the preceding:

ECZEMA MADIDANS, or *eczema rubrum,* results from a shedding of the epidermis, which may be either the result of a chronic eczematous process, or may occur acutely. The denuded and diseased rete Malpighii if irritated may give exit to vast quantities of serum, or the exudate dries into crusty scales, upon a moist base; it is often observed typically on the lower legs.

ECZEMA SQUAMOSUM.—This represents a secondary stage following many conditions; there is a continuous exfoliation of epidermis, generally from a reddened surface.

ECZEMA SCLEROSUM.—This relates to the thickening of skin, which sometimes forms almost the sole feature of the case, as upon the palms and soles, and finger-tips. This form leads to the next:

ECZEMA FISSUM or RIMOSUM presents cracks of varying size and depth, often very painful; upon the ends of the fingers the hardening and fissuring are quite peculiar (*eczéma fendillé*).

The next consideration relates to the *location* of the eruption, which may be of importance diagnostically and therapeutically; in both of these aspects the eruption will now be considered as it affects various localities. Local therapeutics only will be dwelt on, general treatment being reserved till later.

ECZEMA OF THE FACE AND SCALP.—The face and scalp are very common seats of the eruption in infants; at first it appears as an itchy, reddened patch, with a few papules which are quickly torn, and a raw, exuding surface results, which soon becomes covered with crusts, to be again torn off by scratching; the diseased surface rapidly increases in size until a large portion of the face and scalp may be affected. In adults the eruption commonly assumes the erythematous or papular forms on the face, or a pustular one upon hairy parts.

Eczema of the *eyelids* is sometimes a very troublesome affection; its real nature often passes unrecognized, and it is often regarded as a simple blepharitis, and proves rebellious until proper constitutional treatment is instituted. The edges of the lids are thickened and red, and the lashes glued together.

Eczema of the *lips* may exist alone, affecting the skin or the vermilion border; about the mouth erythematous eczema is very rebellious, owing to the constant movements of the part. Eczema of the upper lip is often closely connected with, if not dependent upon, an irritating discharge from the nose.

Eczema of the *ears* is not uncommon in children, and behind the ears it is also frequent in adults. When acutely affected the ears are greatly swollen, hot, and painful; in a chronic state of eczema they are moist, thickened, and itchy. Behind the ear the eruption is very apt to linger for a long time, causing annoying cracks. Chronic eczema of the external auditory canal is not infrequent, but often unrecognized.

Upon the *scalp* eczema may be seen in three phases: *pustular*, *moist* or *exuding*, and *dry* or *scaly*. Pustular or impetiginous eczema is common in young persons, presenting separate pustules, or more often only crusts, which mat the hair together, with a moist surface beneath. In moist or exuding eczema of the scalp the hairs are often stiffened as though from mucilage; the condition may remain some period of time or may pass quickly into the next form. Squamous or scaly eczema exhibits many phases and degrees; often it is but a later stage of other forms, but it may also appear to be a primary affair, slowly increasing from a moderate scaling, until what at first appeared as a mild dan-

druff becomes annoying in the extreme, by the itching and the constant shedding of scales.

Much of what was formerly called scaly eczema of the scalp is now recognized to be *dermatitis seborrhoica* (eczema seborrhoicum), described in the next chapter.

Diagnosis.—Eczema of the face may be confounded with *erythema*, *acne rosacea*, and *erysipelas;* in the beard, with *sycosis* and *tinea barbæ* (or parasitic sycosis). Upon the lips it may be mistaken for *syphilitic mucous patches*, especially at the corners of the mouth, and for *herpes labialis*. Pustular eczema of the scalp may resemble *phthiriasis*, a *pustular syphiloderm*, and crusted *favus;* scaly eczema of the scalp resembles *dermatitis seborrhoica*, *pityriasis*, *psoriasis*, *seborrhœa*, *tinea tonsurans*, and old cases of *favus*.

Treatment.—The treatment of eczema of the face and scalp should be essentially soothing and astringent. Tannin ointment (Formula 94) is especially suited to the scalp; it should be applied freely and left on, the part being washed very seldom, and then with green soap tincture (Formula 41), or tar soap; the scalp should be dried quickly and thoroughly with *hot* towels, and the ointment be reapplied within a few minutes after the washing. In using stimulant lotions subsequently (Formulæ 56, 57, 58), to promote the growth of the hair, care must be taken not to overstimulate.

The face is a difficult portion to treat, and bears

stimulation poorly. During more acute stages soothing lotions and ointments (Formulæ 26, 27, 28, 89, 92) are required; later those containing tar are of service to relieve the itching (Formulæ 95, 97). In eczema of the beard daily shaving with Pears' transparent soap, and the continuous application of a calamine or diachylon ointment (Formulæ 90, 103), give the best results.

ECZEMA OF THE HANDS AND ARMS.—The eruption is very rebellious on the hands, owing to their exposure to air and water, the great motion of the parts, and the difficulty in keeping dressings applied. Acute eczema may exhibit much inflammation and considerable œdema; more commonly the eruption is sub-acute or chronic, with the repeated production of papules, and raw, hard patches, with fissures. On the palms (and soles) chronic eczema presents a stiff, hard surface, reddened or not, with a ragged scaling, and cracks, usually very painful, combined with itching, which may be distressing. The diagnosis between this and *palmar syphilis* is often very difficult; as a rule the eruption of syphilis is more sharply defined than that of eczema, with a decided tendency to clear in the centre and to spread peripherally. The margin of the syphilitic eruption is composed of separate elements, papules or tubercles, and the cracks are usually through these; whereas those in eczema may occur anywhere and in any direction through the thickened skin.

Eczema of the arms exhibits the features of eczema elsewhere; at the bends of the elbows it is apt to present evenly reddened surfaces, very itchy, exuding freely when scratched. Elsewhere the eruption is usually papular or in patches of reddened and moderately thickened tissue. A very scattered papular eruption on the forearms or elbows should always suggest scabies.

Diagnosis.—Eczema of the backs of the hands may be mistaken for *dermatitis venenata*, *scabies*, *pompholix*, *lichen planus*, and *erythema papulatum*; on the palms (and soles) the condition suggests *tylosis*, *syphilis*, and *psoriasis*.

Treatment.—This varies greatly with the condition present; in the more acute form of the eruption envelopment of the hand and arm in a bag containing buckwheat flour is most serviceable, also cooling and astringent lotions and ointments (Formulæ 26, 27, 28, 89, 92). In sub-acute states an ointment with tar is of most service (Formulæ 95, 96, 97). The chronic forms resist severe stimulation, and blistering even with cantharides may be required. The compound tincture of green soap (Formula 42), well rubbed on with flannel or with a brush, and followed by a soothing ointment (Formulæ 89, 90, 92), sometimes accomplishes much; often this aggravates the trouble, and solutions of caustic potash (Formula 17), used similarly, are best borne. Eczema of the palms is greatly benefited by soaking

the part on the surface of very hot water, for a few minutes, and the subsequent application of diachylon ointment (Formula 103), spread on lint and bound firmly on; in some cases a mercurial application is of the most service (Formulæ 97, 98).

ECZEMA OF THE FEET AND LEGS.—The eruption in this locality is obstinate because of the relations of the parts to the circulatory system; the dependent position taken for so much of the time tends to produce and keep up congestion, and to hinder absorption. Upon the lower legs the eruption is usually seen in the form of what is known as *eczema rubrum* or *madidans*, exhibiting a red, raw, and tender surface, exuding greatly if irritated, but also tending to cover itself with imperfectly formed epidermal scales and crusts. The itching is often most distressing, and there is frequently great soreness and pain from the accompanying varicose veins. Ulcers of the leg are frequently associated with eczema, and are due to the same causes. Eczema may also appear upon the legs in all the ordinary forms, and is often seen in scattered or grouped papular eruptions; in the popliteal spaces it may be so severe as to impede walking.

Upon the feet eczema often exhibits vesicles, especially on the toes; chronic hard patches also often occur about the ankle and top of the foot, which are very rebellious. On the soles the eruption resembles that on the palms.

Diagnosis.—Eczematous and varicose ulcers frequently resemble the lesions of *syphilis*, as may also the eruption on the soles; eruptions about the toes and ankles of children should always suggest *scabies*.

Treatment.—Internal treatment is very necessary. The local treatment of eczema of the leg has been much simplified since the introduction by the present writer, some years ago, of the solid rubber bandage for this complaint. It is applied directly upon the diseased surface, not too tightly, and worn during the day; at night the surface is gently washed with weak carbolic water (℥j ad Oj), and, if necessary, a soothing lotion or an ointment (Formulæ 26, 27, 28, 89, 90, 92) applied. The bandage, having been washed on removal and aired all night, is reapplied in the morning *while in bed*, after the dressing for the night has been removed, and any ointment gently *wiped* off; as grease and glycerine soon destroy the bandage. In more chronic cases the application of caustic potash, or green soap, alone or in solution or with tar, or the liquor picis alkalinus in varying strength (Formulæ 17, 41, 42, 44), is of service, always to be followed by soothing applications (Formulæ 89, 90, 92). Eczema of the feet yields well to tar and zinc ointment, and later to tannin and diachylon ointments (Formulæ 94, 95, 103). Lotions of ichthyol are of value, also permanganate of potash painted on (Formulæ 46, 47, 48).

ECZEMA OF THE ANUS AND GENITAL REGION is most intractable if wrongly treated, and very manageable if all is done rightly. Internal treatment is specially important. The eruption manifests various degrees of severity, from a moderately itchy, soddened condition around the anus, to a severely raw eczematous surface, involving many square inches of this region. Many cases formerly called *prurigo podicis* and *prurigo scroti* are now recognized as eczema. The thickening is very manifest upon the scrotum, and the element of cracking is very common at the anus; the itching from eczema in this region may be excruciating.

Diagnosis.—This is generally not difficult; the most important lesion to bear in mind is the ringworm of this region, *tinea trichophytina cruris*, the so-called *eczema marginatum*, already described under parasitic diseases. *Phthiriasis pubis*, or "crabs," should be excluded, also *syphilitic lesions*, *mucous patches*, and others; likewise *scabies*, which may give rise to inflamed points on the penis.

Treatment.—The internal and dietary treatment are of the greatest weight, especially such as look to a proper performance of the functions of the liver, bowels, and kidneys, which will be considered later; oxaluria is very common in these cases.

But proper *local treatment* is also immensely important, both in regard to the actual measures employed and the method of their use. The most

universally serviceable application in chronic eczema of this region is the ointment of tar and zinc (Formula 95); this is to be spread thickly on the woolly side of lint and bound on the parts, after they have been soaked for a few minutes with a cloth dipped in very *hot* water. The dressing is to be changed twice daily, but the hot water applied only at bedtime. Other local measures are also of service, as the calamine lotion (Formula 26), followed by the free application of fullers' earth or other powders (Formulæ 85, 86); later, stimulation with the compound tincture of green soap (Formula 42), followed by a soothing ointment (Formulæ 89, 90, 92).

ECZEMA OF THE TRUNK AND GENERAL ECZEMA.—On the body the eruption may take many phases; papular and erythematous eczema are most common. Beneath the breasts raw, moist surfaces are apt to form very rapidly, and disappear quite as quickly under proper measures. The region of the nipple is sometimes the seat of a condition resembling eczema, to which the name of "*Paget's disease*" has been recently given, which is in reality an epithelial degeneration, frequently ending in cancer (see Epithelioma). The umbilicus is occasionally the seat of an obstinate eczema, and the axillæ are sometimes affected to a very troublesome degree; boils and abscesses are not uncommon in the latter region, in connection with eczema.

General eczema of the entire body, head, and

limbs, is always a serious affair, especially in adults, and indicates profound nervous depression.

Diagnosis.—Eczema of the trunk may be mistaken for *psoriasis*, *dermatitis herpetiformis*, *dermatitis seborrhoica*, *tinea*, *syphilis*, *zona*, and *pityriasis rubra*; eczema of the breast for "*Paget's disease*" or *epithelioma*, and *scabies*; eczema of the axillæ for *ringworm* of this region.

Treatment.—The local measures do not differ from those detailed in regard to other portions of the body; baths (Formulæ 1, 2, 3) are particularly valuable, together with the subsequent free use of an ointment (Formula 111), or cod-liver or linseed oil, with or without oil of cade (Formula 45). Laxatives and cooling alkaline mixtures (Formulæ 59, 60), followed by powerful tonics, are required.

INFANTILE ECZEMA.—In children under five years of age the eruption of eczema is exhibited in its typical form, as far as the acute, raw, and exuding aspects are concerned. Beginning with a comparatively small amount of papular or erythematous eruption, the condition may rapidly extend until the entire scalp and face, also the arms, legs, and much of the body, are the seat of a diseased cutaneous action. The surface of exposed parts is generally covered with crusts, which are frequently torn off, leaving a bleeding and exuding corium; covered parts become more dry, generally adhere to dressings, and when these are forcibly removed exhibit a

reddened, papular surface, with numerous excoriated points, which sometimes bleed. The itching of infantile eczema is generally frightful, and the little sufferers become frantic in endeavors to get relief.

Treatment.—Diet, hygiene, and proper internal medication are of the very highest importance, and too much time and thought can hardly be given to discovering and rectifying errors of health. In treating nursing babies afflicted with eczema it is often necessary to treat the mother carefully by diet and internal medication, as a faulty condition of the breast milk is often at the bottom of infantile eczema.

In the *local treatment* of infantile eczema the utmost care must be exercised to avoid overstimulation of the affected part; the measures must be soothing and astringent, and relief from the itching is to be looked for rather in carefully directed internal and dietary treatment and proper protection of the part than in applications which have any very great antipruritic effect. The tar and zinc ointment (Formula 95) is a safe and valuable remedy if efficiently applied, spread on lint and bound on; a little ichthyol, three to five per cent., will often increase its efficiency. This should be renewed twice daily, and on exposed surfaces the ointment is reapplied as often as rubbed off, even many times daily, to the entire exclusion of the air. Zinc and

bismuth ointments, to which a little camphor or oil of cade may be added (Formulæ 89, 90, 92, 95), are also efficient remedies. Air and water are highly injurious to eczematous skin; the first is kept away by means of the ointment, the other by force of will. Eczematous skin should not be washed; when this is absolutely necessary the part should be again instantly and thoroughly protected by ointment, after being very carefully and rapidly dried, without friction. Ichthyol in lotion, bathed over the part and allowed to dry on, often gives much relief, also permanganate of potassa, in very weak solution (Formulæ 47, 48).

Etiology.—Eczema appears to be hereditary in a comparatively small proportion of cases; it is not caused by infection or contagion; it is not directly due to malaria, but this element may be of importance in certain cases; it is never wholly produced by external irritative agents without additional internal conditions; as far as is known, it is not caused by any single article of diet; there is no one efficient, recognizable cause to which it can be always attributed.

The causation has to do with two classes of elements, constitutional and local, though the direct effect of the latter is often very difficult to trace. Eczema is eminently a disease of debility; this may be of three kinds, assimilative, nutritive, and ner-

vous, or, as more commonly spoken of, gouty, strumous, and neurotic. By far the larger share of patients with eczema exhibit what has been known as the gouty state; that is, a condition of system tending to gouty development, manifested by the most varied signs of imperfect assimilation and disintegration. The strumous and nervous states act also efficiently as predisposing causes of eczema.

Local causes are found in any agencies which irritate and inflame the skin. Many cases seem to depend upon occupation, but it must ever be remembered that these local agents only suffice to cause an eczema in a very few of the persons exposed to them.

Treatment.—The treatment of eczema is a very broad subject, reaching deeply into general medicine. Wilson has well said that "the highest and best qualities of medical art and science must be put in practice with foresight and discretion for the treatment of an eczema." There is no specific for the disease; arsenic will not cure it; the general state should be most rigidly studied, and remedies and measures suited thereto. Most eczema patients are benefited by alkalies, combined with bitter tonics (Formulæ 59, 60, 61, 62), together with judicious regulation of the action of the liver and the bowels (Formulæ 77, 78), although much purgation often does harm. Tonics are required later (Formulæ 64, 65, 66, 70), and of these iron, strychnine, arsenic,

and cod-liver oil hold the first place. But harm can often be done by tonics if the emunctories do not act properly; the action of the skin as an organ must never be forgotten, and alkaline baths followed by proper inunction (Formulæ 1, 2, 3, 111, 112) are of value in most cases of eczema.

Diet and hygiene are of the utmost importance; the benefits of most careful regulation of the diet are especially noticeable in infantile eczema, but the ill results from errors in diet may be observed in almost all eczema cases. Sweets and starches in excess must be avoided, and fats encouraged. Exercise is all-necessary in eczema. In acute cases, a great reduction in the amount of meat taken is often of much service, and in cases exhibiting marked *uric-acidemia*, total abstinence from beef and mutton is very beneficial. In debilitated cases warm milk, drank *one hour before* meals, pure and alone, absolutely without food, will often aid very greatly.

The *local treatment* has already been detailed in regard to the eruption in different localities; a few words may be added in reference to the principles governing its use. The main point to be remembered is the irritable nature of eczematous skin, and the danger of using too severe measures; it is far easier to increase the stimulation as required than to soothe a skin which has been unduly excited. In chronic eczema, however, very severe measures, even scrubbing with a brush and green soap, may

be required, but the subsequent treatment must be soothing.

Air and water are irritating to skin affected with eczema; the effort must be made, therefore, to exclude the former by proper dressing, while the latter is avoided; if washing is employed the part is to be at once gently dried, and protected by a proper dressing. Too frequent washing of an eczematous part will often keep up the eruption in spite of proper local measures.

The mode of making local applications is often of great importance; as a rule, ointments which are intended to be protective should *not* be rubbed on the diseased part, but spread thickly on the woolly side of lint, or on very thin sheets of absorbent cotton, and kept in close apposition to the diseased surface. But in keeping them applied care must be exercised that the part be not overheated by warm wrappings.

For more acute eczema, powders are applicable, and buckwheat flour forms one of the best dressings possible. Lotions which leave a powder on the skin (Formulæ 26, 27, 28) are also very grateful; some skins are irritated by the glycerine often used in them, which may then be replaced by almond emulsion. In sub-acute and chronic conditions powders and mild lotions are almost useless, and ointments are called for, soothing, astringent, or stimulating; these are often combined with stimulating lotions,

especially those containing tar (Formulæ 17, 41, 42, 43, 44), the lotion being wiped off gently with a damp cloth, if it burns, and followed directly by a soothing ointment (Formulæ 89, 90).

Many mistakes are often made in endeavoring to relieve itching, stronger and stronger applications being employed only to the aggravation of the eruption, often, indeed, when the mildest remedies will give relief. Tar, carbolic acid, menthol, and ichthyol (Formulæ 93, 95, 96) are valuable antipruritics; the liquor picis alkalinus (Formula 44), diluted ten times or more, is very serviceable, also chloral and camphor, in powder or ointment (Formulæ 87, 113). The tincture of gelsemium, also that of cannabis indica, taken internally in doses of ten drops, repeated and increased, is often of great service, but it is not well borne by every one. Phenacetin, in ten-grain doses, at bedtime, repeated in an hour if necessary, will also often serve to secure relief from itching.

In the treatment of eczema, more is to be accomplished by a careful study of the patient in every aspect, and the adaptation of remedies suitable to the condition found, than by the employment of any special prescription which is supposed to be of value in the disease, or which is recommended by ever so high an authority. *Attention to details* is of the first importance in eczema, and the good effect of even the best remedies may be frustrated

by failure in some particular of the management of the case, while the best local application will often fail of its end, or even do harm, if wrongly employed.

Nothing has been said in regard to the value of mineral waters, because long experience has led the writer to a very poor opinion of their efficacy. Undoubtedly the free use of *hot* water, mineral or plain, an hour before meals, will often add materially in washing out the kidneys and promoting perspiration, and so help many cases. Benefit is also often obtained by an exactly proper course of treatment at the proper mineral spring, especially at those containing alkalies, but in the popular estimation their value is greatly overrated. Sulphur waters sometimes do good, but also often prove injurious. Iron waters are serviceable in chronic cases, but arsenic, iodine, bromine, and other waters are often a delusion.

CHAPTER XV

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY DISEASES—(*Continued*)

VII. SQUAMOUS ERUPTIONS

FOUR separate conditions are thus grouped: (1) *dermatitis seborrhoica* (or eczema seborrhoicum), (2) *dermatitis exfoliativa* (or pityriasis rubra), (3) *pityriasis rosea*, and (4) *psoriasis;* in these the scale, if it is not a primary lesion, is an inseparable element in the eruption.

16. **Dermatitis seborrhoica.** Synonyms: *Eczema seborrhoicum; Seborrhoic eczema.* This eruption of recent differentiation, largely by the efforts of Unna, has some of the characteristics of eczema, and by many has been classed as such, with the name "seborrhoic eczema." But more careful observation removes it from this disease, and several recent writers regard the name *dermatitis seborrhoica* as more appropriate.

It may be defined as a chronic, slightly inflammatory affection of the skin, probably of microbic origin, exhibiting scales, generally of a greasy char-

acter, either on normally colored or moderately congested skin, with a tendency to extend (generally from the head downward) by sharply defined, more or less circular, areas. It is frequently accompanied with itching, which, however, is never so severe as in eczema.

The most typical and perfectly developed form of the eruption occurs on the chest and back, in the form of circular, yellowish-pink or reddened patches or rings, slightly raised, with a considerable amount of greasy crusts. Other marked forms of it are often seen about the forehead and temples, extending out from the hair, with more or less indefinite outline. It affects also the nose and cheeks, eyebrows, moustache, and beard, also the ears and lips, in less marked form, often with dryer scales. The eruption is not uncommon in the axillæ and groins, with more or less sharp margins, and on the extremities, either in clearly defined, often psoriatic-like patches, or in more indefinite scaly areas.

Upon the scalp (which is believed by some to be always the primary seat of the disease, from whence it spreads downwards) the eruption appears in several forms. It may exhibit clearly defined, red, scaly patches, or the surface may be more or less bathed in a greasy, adherent, sebaceous coating; or, the scaling may be more or less branny, giving rise to "dandruff"—the "*pityriasis capitis*" and "*seborrhœa sicca*" of older writers. With this form the hair is

lustreless and falls diffusely, and this disease is a very fertile cause for the premature loss of hair.

Etiology.—Although not yet wholly proven, the cause of the eruption appears to be one or more micro-organisms, whose presence leads to a peculiar irritation of the fat-producing glands of the skin. Undoubtedly, as in the case of other parasitic diseases, they flourish when the soil is suitable, and debilitated conditions lead to its development. The eruption may be quiescent on the scalp or elsewhere for years, and become suddenly aggravated with the occurrence of dyspepsia or other causes tending to mal-assimilation.

Diagnosis.—Upon the scalp the eruption may be mistaken for an old *seborrhœa*, *tinea capitis*, or *psoriasis*, and *squamous eczema*. On the face it may resemble *eczema*, *lupus erythematosus*, *seborrhœa*, *psoriasis*, and some forms of *syphilis*. On the chest and back, as also on the limbs, it can be mistaken for *tinea versicolor*, *tinea circinata*, *psoriasis*, *syphilis*, and *eczema*.

Prognosis.—Dermatitis seborrhoica is very apt to return when treatment is discontinued, either from fresh infection or from remains of the parasite deeply seated, which have not been thoroughly removed.

Treatment.—While the eruption is largely local, some attention to internal treatment is necessary to secure a permanent result. And this is such as is suitable to a similar case of ordinary eczema.

The eruption, however, seems to yield often to

local treatment alone, and generally very satisfactorily. Resorcin and sulphur exert an almost specific effect upon it, and ammoniated mercury is very serviceable. On the scalp a lotion of resorcin (Formula 55) acts best, and should be thoroughly applied night and morning, by means of a medicine dropper, and thoroughly rubbed in with the fingers. The scalp should also be shampooed (Formula 41) every ten to twenty days, dried with *hot* towels, and the lotion immediately reapplied. Later, stimulating lotions are required (Formulæ 56, 57, 58), to which five to ten per cent. of resorcin or salicylic acid may be added. On the face and body ointments of resorcin, sulphur, or white precipitate act best (Formulæ 91, 98, 116), also salicylic acid paste (Formula 75). If the surface is much irritated, treatment suitable for eczema may be required first.

17. **Dermatitis exfoliativa.** Synonym: *Pityriasis rubra.* This is an inflammatory, non-contagious affection, involving a greater or less extent of surface, either continuously or in patches, characterized by a red, congestive color, and the production of a greater or less amount of branny scales. The process appears to be simply a congestive and slightly inflammatory condition, which goes only to a desquamative stage, without thickening or exudation, as in eczema, and with comparatively little burning or itching.

Various degrees and grades of this affection have been observed by different writers. Hebra described as *pityriasis rubra* cases where a large share of the body was affected, and where the process, a severe one, was generally fatal; this form is rare. Other observers have recorded milder degrees of the same condition, and with favorable prognosis. While in some instances the eruption has been localized, as on the hands and feet, resulting in complete exfoliation, in others it has occupied large tracts, and has been characterized by a tendency to recur again and again.

Diagnosis.—Many eruptions are characterized by redness and scaling, but the disease under consideration, when considered in its whole course, will be found to differ materially from all other affections. It is most likely to be confounded with more or less general *squamous eczema*, also with *psoriasis*, *pemphigus foliaceus*, and *lichen ruber ;* also possibly with very diffuse *tinea circinata* and *tinea versicolor.*

Treatment.—The eruption is rebellious to all therapeutic measures, and no single line of treatment can be recommended with prospect of great success. Milder cases yield to alkaline and tonic remedies (Formulæ 59, 60, 64, 65), together with baths and emollients (Formulæ 1, 2, 3, 45, 46, 111, 112); in the more severe cases constant envelopment in oil, as linseed or cod-liver oil, affords the most promise.

18. **Pityriasis rosea.** Synonyms: *Pityriasis maculata et circinata; Pityriasis circinata.* This is a very superficial, mildly inflammatory eruption, composed of pale red, slightly scaly patches, hardly raised at all above the level of the skin; there is sometimes considerable itching, but the eruption often gives very little annoyance, and almost escapes recognition. The eruption manifests itself almost always first about the shoulders and upper chest, and may remain trifling in amount, or may increase so as to cover much of the body and limbs. The patches are usually discrete and separate, but occasionally are so thickly set as to coalesce; as the individual patches increase from a small point there is a tendency to clear in the centre, with sharply defined margin.

Etiology.—Nothing is known as to the cause; the patients seem to be in good condition, and it is not contagious.

Diagnosis.—The eruption most resembles an early *syphiloderm;* it could also be mistaken for *tinea versicolor, dermatitis seborrhoica, tinea circinata,* and *psoriasis.*

Prognosis.—The eruption may last some weeks even with good treatment, but tends to recovery; relapses are rare.

Treatment.—The eruption generally yields well to mild applications, such as soda hyposulphite (ʒ ss–ʒ j, Aquæ ℥ j) and bichloride of mercury (1 : 500), with

a little glycerine. Alkaline baths and the treatment suitable for eczema may be required in severe cases.

19. **Psoriasis.** Synonyms: *Lepra vulgaris; Lepra Willani; Alphos; Dry* or *Scaly tetter.* Psoriasis is a non-contagious affection of the skin, exhibiting slightly elevated, reddened patches, of varying size and shape, generally circular, covered with a greater or less quantity of dry, white scales, heaped together, and having a peculiar, shiny, bran-like appearance when removed. Beneath the scales there is found, on scraping, a little pellicle which comes off in a sheet, and is soft and pliable; the reddened surface beneath this may be made to bleed very readily.

The amount and degree of eruption in psoriasis may vary greatly with the case, from a very few small patches, perhaps not covering in all one square inch, to an eruption affecting the larger share of the entire integument. The eruption selects by preference the extensor aspects of the limbs, and will generally be found upon the elbows or the front of the lower limbs; the scalp and top of the forehead, also the loins, are favorite seats of psoriasis. It is very apt to be symmetrically developed. Certain other portions are rarely affected, as the genital region, backs of the hands and feet, and face; the palms and soles are almost never attacked without a development of the eruption elsewhere.

Various designations have been given to the dif-

ferent appearances which the eruption of psoriasis presents, all based upon the mode of development of the lesions. The first appearance is always in the form of a minute red spot (*psoriasis punctata*), which speedily becomes covered with a white scale, looking as if mortar had been spattered on (*psoriasis guttata*). The tendency is always to increase in size peripherally, and when a little larger there is a fancied resemblance of the round spots to coins (*psoriasis nummularis*); as the patches also tend to clear in the centre, a ring-like appearance results (*psoriasis orbicularis* or *circinata*). In certain cases these rings may coalesce, and so clear up in portions as to produce gyrate forms (*psoriasis gyrata*); when large surfaces are involved the name *psoriasis diffusa* or *aggregata* has been used, and *psoriasis inveterata* is applied to express obstinacy. All these represent the same eruption in various forms. The nails may be affected, white patches appearing in them, with little pits on the surface, or the ends may become thickened, friable, and split.

The term *lepra* was formerly applied to the eruption when forming the larger patches seen in *psoriasis nummularis* and *orbicularis*, the most typical forms of the eruption; at present the term lepra is used to designate leprosy, *elephantiasis Græcorum*, an entirely different affection, with which this has nothing in common. Willan applied the term psoriasis also to many conditions now recognized to be

forms of eczema; these two diseases are to be entirely separated, eczema does not become psoriasis when a scaly stage is reached, although occasionally the two may be combined, and sometimes the one may be developed into the other.

Psoriasis presents quite different aspects as it occurs in strumous or gouty persons; in the former the scales are thick and apt to become heaped up, and the base is less congested (*psoriasis rupioides*), while in gouty subjects the scales are thin, often scanty, and the base is very red; the former itch but little, the latter may prove very troublesome from this symptom. The strumous cases are generally in children and young persons, and yield more readily to cod-liver oil; in the gouty cases, which are rebellious, alkalies, colchicum, and arsenic are most useful.

Psoriasis is one of the more common diseases of the skin, coming fourth on the list, with 700 cases in the 20,000, forming 3.82 per cent. in private and 3.18 per cent. in public practice.

Etiology.—Little or nothing is known of the actual causes of psoriasis; it has no connection with syphilis or leprosy, it is not contagious, and no single article of diet, nor any local cause, will produce it. It is met with about equally in males and females (379 to 321), seldom appears before puberty, although children may be affected, and very rarely develops for the first time after forty years of age. Very many

psoriasis patients appear to be in perfect health, but in most of them faulty assimilation and disintegration can be made out.

Diagnosis.—Psoriasis may be mistaken for *dermatitis seborrhoica, eczema, favus, lichen planus, lupus erythematosus, seborrhœa, syphilis, tinea trichophytina*, and *xeroderma;* generally, sufficient care will suffice to demonstrate features which are quite typical in every case of psoriasis. Upon the scalp the diagnosis from squamous eczema may be difficult, and certain cases of scaly syphilis resemble it very closely.

Prognosis.—This should always be very guarded, for the eruption is most rebellious and with a strong tendency to return.

Treatment.—This is often unsatisfactory, the eruption proving most rebellious, and recurring again and again, even in the face of energetic measures. Internal treatment is necessary, as well as local, for the eruption will pretty certainly return if removed by local means alone.

Diet undoubtedly has much to do with the eruption, which may constantly be observed to be aggravated after indulgence in liquor or high living, and also to appear when the nutrition is poor. Excess of meat will often increase the eruption, and the entire avoidance of beef and mutton will often be followed by absence of the eruption as long as it is persisted in. Excess of sweets will also increase it.

The strumous cases, as stated, do best under tonics and cod-liver oil given freely. Gouty cases require alkalies, which need to be administered with a free hand, while at the same time, or later, arsenic, strychnia, and other tonics are required. The best alkalies are the acetate and bicarbonate of potassium, and liquor potassæ, combined with bitter tonics (Formulæ 60, 61, 63); the mineral waters do not seem to act as well as these. Later, arsenic is of service; but in the more acute and itchy conditions it will often aggravate the eruption.

Local treatment will sometimes be followed by most excellent results, and at other times will produce almost no impression upon the eruption; it is very questionable if local measures alone effect a permanent cure. The agent having the most decided effect upon psoriasis is chrysophanic acid, used in the form of ointment (Formula 106). Under its use the spots will speedily become smooth and white, while the surrounding skin is stained of a purplish hue, deepening into mahogany color; if its use is discontinued too soon the spots will reappear; to be effectual it should be persisted in until the skin is evenly colored. But there are serious objections to it, from the staining of the skin and clothing, and the irritation often produced; on delicate skins it will sometimes cause very considerable inflammation, and should always be employed with caution at

first; pyrogallic acid (Formula 107) has been substituted for it with fair results, and does not stain so badly; it must be used with some caution, as serious systemic effects have been reported from its very free employment. Both chrysophanic and pyrogallic acid may be very satisfactorily applied in collodion, or liquor gutta-perchæ (℈j–℥ ss ad ℥ j), the spots being painted with it twice daily.

Mercurial ointments (Formulæ 98, 100, 101) rank very high, white precipitate being one of the best; sulphur preparations also have considerable power over the eruption, and of these Vlemingkx' solution (Formula 40) is most powerful, but often proves irritating. Tar will often control the eruption, and may be employed in various ways, pure or in combination with other agents; the liquor picis alkalinus, and the compound tincture of green soap (Formulæ 42, 43, 44), are very serviceable. Salicylic acid in lotion (℥ ss ad ℥ j) with alcohol and glycerine is also effective, also in ointment (Formula 75 made stronger).

To be effective local applications should be made directly to the diseased surface deprived of scales; for this purpose the patches are scrubbed or washed to free them, or alkaline baths are given (Formulæ 1, 2, 3), after which the appropriate remedy is well rubbed into the affected parts. Mechanical removal of the scales, and even the scraping of the surfaces until they bleed, before the application, are some-

times followed by the best results. In more acute stages and phases the eruption must be first treated by soothing measures, as described under eczema.

VIII. PHLEGMONOUS ERUPTIONS

This group is characterized by localized inflammatory action, resulting often in destruction of tissue and in the discharge of a slough of necrosed substance; the process is deeper than in the eruptions classed as pustular. Four affections are placed here: (1) *furunculus*, (2) *carbunculus*, (3) *abscessus*, and (4) *hordeolum*.

20. **Furunculus.** Boils or furuncles consist of circumscribed points of inflammation of the corium and connective tissue, attended with much pain and terminating in suppuration and the formation of a central slough or core; when this escapes the little abscess tends to heal. Boils seldom come alone, but often in considerable numbers, and frequently one will succeed another for a considerable period; the condition or state exhibiting furunculi is known as *furunculosis*.

Etiology.—The immediate cause of the pustular inflammation is now recognized to be micro-organisms, chiefly staphylococci; but these are almost everywhere present, and the repeated occurrence of boils should always be looked upon as an indication

of lowered vitality, which allows the pus-forming microbes to operate; although the impression is very common that boils are salutary, and either indicate excess of health, or are in themselves healthful. Boils are often the indication of glycosuria or profound lithæmia. The local cause can sometimes be found in local irritation, but often no adequate reason for their appearance can be discovered.

Diagnosis.—There are few conditions which can be mistaken for boils; *ecthyma*, and the large *pustular syphiloderm* sometimes resemble them, but the hard, painful inflammation of a boil is characteristic; from *carbuncle* it is differentiated by its size.

Treatment.—This should always be directed towards rectifying general errors in nutrition; tonics are always called for, the most valuable being iron and magnesia (Formula 59), together with improved diet and hygiene; it is often well to commence the treatment with a good purgative (Formula 77). The preparations of sulphur have the most direct control, and of these the most powerful is the sulphide of calcium, one quarter grain, every two hours, a fresh preparation in gelatin coated pills; the hyposulphite of sodium is also efficacious. Locally, irritation should be carefully avoided; such common remedies as soap and sugar to "draw" the boil, do harm and cause pain, and poultices should never be used. Very much relief can be obtained from an ergot

ointment (Formula 115), applied both when forming and after rupture; this should be very thickly spread on absorbent cotton, laid on the boil, and held in place by strips of adhesive plaster, placed at the ends, and not crossed over the boil.

21. **Carbunculus.** Synonym: *Anthrax simplex.* A carbuncle is an inflammation of the skin and subcutaneous tissue, attended with deep boring pain, exhibiting dusky redness and brawny hardness, and with the subsequent production of numerous sieve-like openings through the skin, discharging pus; later the entire centre sloughs out to a varying extent, leaving a granulating surface which heals with a scar.

The most common location for a carbuncle is the back of the neck, but they may also be observed upon any portion of the body; it is always a serious affair, if of any size, and may prove fatal in those who are debilitated. The causes are unknown, other than such as produce furuncles.

Diagnosis.—The red surface might be mistaken for *erysipelas*, but the hardness and pain soon determine the diagnosis.

Treatment.—Tonic treatment should be given from the outset, and the strength husbanded by the best of dietary and hygienic conditions, care being taken that the bowels and kidneys act rightly, especially in gouty subjects; stimulants, quinine,

tincture of iron, etc., are all called for, and sufficient opium to secure rest at night. The mixture of iron and magnesia (Formula 59) and sulphide of calcium given as for boils, have been effective in my hands in diminishing the suppuration. Locally the ergot ointment (Formula 115), alone or with the addition of ichthyol (℥ ss ad ℥ i), used very abundantly, and applied as in boils, from first to last, has given me the best results; I have not used poultices or practised incision for ten or more years.

22. **Abscessus.** Cutaneous abscesses are often seen on the face in connection with indurated acne, where large fluctuating collections of grumous pus are formed; they are also seen on the scalp of infants, especially in hot weather, and in connection with eczema. In the axillæ the abscesses often appear to be wholly cutaneous, and such are probably connected with the sweat glands (*hidro-adenitis*).

The *treatment* is to be conducted on general principles, and often that suitable for eczema gives the best results, together with proper surgical procedures.

23. **Hordeolum.** Styes are closely related to boils, and consist of an inflammation in and around the Meibomian glands, characterized by a painful swelling which rapidly suppurates, and disappears very quickly after the discharge of its contents; there generally is no central slough. Styes are very

frequently associated with eczema and boils, and less commonly so with acne. They seldom come alone, but often in a succession, even of a dozen or more. They are always an indication of lowered vitality and disordered system; the principles of treatment applicable to eczema and boils are of most service, with, locally, the application of *mild* red oxide of mercury ointment (Formula 101).

IX. ULCERATIVE ERUPTIONS

Ulcers are very generally secondary lesions, the result of some previous pathological process, as in the case of epithelioma, those connected with syphilis, etc.; most of them are, therefore, more properly considered and classified in connection with the diseases to which they belong. There are, however, several ulcerated lesions which are primary, such as, (1) *ulcerative onychia*, (2) *simple ulcer of the leg*, and (3) the *chancroidal ulcer;* the chancre, the primary lesion of syphilis, belongs to and is considered in connection with that disease.

24. **Onychia.** Many conditions affect the growth of the nail, such as eczema, psoriasis, and dermatitis exfoliativa, and in syphilis there may be inflammation or ulceration from new deposit around or near the nail; ringworm and favus also attack the nails, rendering them brittle (*onycho-mycosis*).

True onychia is most commonly of traumatic origin, as in ingrowing toe-nail, or sometimes results from occupation; it is characterized by a suppurative inflammation of the tissues at the root of and around the nail, which may proceed to considerable ulceration, especially in strumous subjects, if not properly treated. When fully developed the tissues around are infiltrated and the nail seems sunk in a mass of fungoid granulations.

Diagnosis.—It is very important to distinguish *syphilitic onychia* from the non-specific form; other than this there is no difficulty in diagnosis.

Treatment.—External irritation must be removed; when a badly fitting shoe is the cause, cure is impossible without a change. Soothing and astringent treatment generally suffices to remove the difficulty; an ointment of the liquor ferri subsulphatis, a drachm to the ounce, acts well, applied thickly after soaking the part in very hot water. Strumous onychia yields fairly to the application of powdered iodoform or aristol.

25. **Ulcus.** Two kinds of ulcers are here recognized, (1) *ulcus simplex*, or simple ulcer, and (2) *ulcus venereum*, the venereal ulcer, or chancroid.

SIMPLE ULCER.—This is best typified in varicose ulceration of the lower leg. When fully formed this exhibits a painful, red, ulcerating surface, with hard, brawny and everted edges; it tends to bleed easily

and gives rise to only a moderate, sanious exudation, quite different from the purulent, fetid discharge from syphilitic ulcerations. Varicose ulcers are very commonly associated with more or less eczema, both being due to the same causes; they are more apt to be single than those of syphilis, and are more commonly found on the lower portion and anterior surface of the leg, whereas in syphilis they generally exist on the sides and back of the calf, also on the upper third, and often about the knee. Ulcers may form on any portion of the body, from injury, and as bed-sores may give much trouble.

VENEREAL ULCER, OR CHANCROID.—This is entirely distinct from the initial lesion of syphilis, or the chancre, and is a local sore produced by inoculation with a contagion whose nature is unknown; inflammation is commonly excited in neighboring glands, producing bubo, but the system is never infected by the chancroid. The forms which the ulcer takes are various, but its main features are the following: 1. Its brief incubation, it appearing almost immediately after inoculation; 2. Its copious, purulent secretion, which is auto-inoculable; 3. Its soft, ulcerated, red base, with sharply cut and often undermined edges; 4. Its generally multiple character and tendency to spread; and, 5. The inflammatory engorgement of neighboring glands, with the tendency of the swelling to become red, painful, and to suppurate.

Diagnosis.—It is often very difficult to differentiate chancroid from the *true chancre*, and often *herpes progenitalis* and *balanitis* will simulate it closely; *eczema*, *psoriasis*, *lichen planus*, and *scabies* may also affect the penis.

Treatment.—Ulcers of the leg are very commonly associated with constipation and defective urinary excretion, and are always signs of vascular debility; very careful tonic treatment will often be required to prevent their return. Varicose ulcers are most frequently found in those who stand a great deal, as in cooks, laundresses, bakers, bartenders, and car-drivers, and are rarely seen in those who walk, even though they remain long on their feet, as postmen. The therapeutic hint from this is that the more that walking can be encouraged, if at all well borne, the more quickly and permanently will the ulcers be healed. The best treatment, therefore, is the solid rubber bandage, used as described under eczema; while wearing the rubber bandage, patients, who before were almost helpless from painful ulcers, can often walk long distances. Strapping with adhesive plaster answers fairly, and mildly stimulating and astringent ointments (Formulæ 93, 103, 105) are of service.

The treatment of the *venereal ulcer*, chancroid, relates to destroying the poison and modifying the diseased action; nitrate of silver is almost useless for this purpose, but the thorough application of

the strongest carbolic acid will often check the process quickly; when it resists this, then, after applying the carbolic acid and allowing it to dry a moment, the stronger acids, sulphuric or nitric, can be applied without pain; subsequent dressings of aristol, or solutions of carbolic acid or zinc, facilitate the separation of the slough and healing of the part.

CHAPTER XVI

CLASS V. HÆMORRHAGIÆ.—HÆMORRHAGIC DISEASES

THREE diseases are here grouped, (1) *purpura*, (2) *hæmatidrosis*, and (3) *scorbutus*, all characterized by the escape of blood from the capillaries of the skin.

1. **Purpura.** Synonyms: *Land scurvy; Purples.* Three varieties of this disease are recognized, (1) *purpura simplex*, (2) *p. rheumatica*, and (3) *p. hæmorrhagica;* all exhibit hæmorrhagic patches of various sizes and shapes, slightly raised or level with the skin, which do not disappear upon pressure; appearing first of an almost arterial red, they quickly deepen in color, until, before they have entirely disappeared, they have passed through various changes, from purple to greenish brown, and yellow.

PURPURA SIMPLEX.—This is commonly seen first upon the lower limbs, and also upon the forearms; the eruption usually develops symmetrically, and is prolonged by successive crops. There are few constitutional symptoms, though the patient generally feels languid. Purpura sometimes occurs during the administration of iodide of potassium.

PURPURA RHEUMATICA. — Synonym: *Peliosis rheumatica.* This resembles erythema multiforme almost more than purpura. It is characterized by rheumatic pains, affecting principally the large joints, and the subsequent appearance of small, sharply defined macules, often first about the knees, which are found to be hæmorrhagic, and not to disappear on pressure; they are apt to be slightly raised, and can often be detected by the sense of touch.

PURPURA HÆMORRHAGICA.—Synonym: *Morbus maculosus Werlhofii.* This is a severe affection exhibiting hæmorrhages from various mucous surfaces as well as in the skin. There is prostration and the sudden appearance of hæmorrhagic spots of varying size, often quite large and purplish, not disappearing on pressure.

Diagnosis.—Purpura may resemble *eczema, erythema multiforme* and *nodosum,* and *syphilis;* the hæmorrhagic variety may be mistaken for *scorbutus,* and *hæmorrhagic smallpox* (often wrongly called *purpura variolosa* and *black measles*).

Prognosis.—Purpura simplex is generally a mild affair, and yields well to treatment; purpura rheumatica is much more obstinate; purpura hæmorrhagica is not infrequently fatal.

Treatment.—Ergot is the chief remedy of service in purpura, although quinine in free doses is most effective in the rheumatic form; ergot should be

given boldly, even every two or three hours, and if necessary by hypodermic injection. Tonic treatment is also indicated.

2. **Hæmatidrosis.** Synonyms: *Ephidrosis cruenta; Bloody sweat.* This is a very rare condition, characterized by the escape of blood through the sweat glands; the fluid which exudes may be very watery. It is most frequently seen in hysterical girls with faulty menstruation.

Treatment.—This must be directed against the conditions present, and in general should be powerfully neurotic; in addition, ergot should be given in doses sufficient to arrest the hæmorrhage.

3. **Scorbutus.** Synonym: *Scurvy.* This is a constitutional state of exhaustion, during which hæmorrhagic, bruise-like ecchymoses occur upon the skin, generally of some size, together with a spongy state of the gums and subsequent loosening of the teeth; it is due to a deficiency of fresh vegetable food in the dietary, and if unchecked tends to death. There is a leaden color to the skin, malaise, rheumatic pains, and œdema.

Treatment.—The treatment is almost wholly dietary; an abundant supply of fresh vegetables and lime-juice is generally all that is required; tonics are of service later.

CHAPTER XVII

CLASS VI. HYPERTROPHIÆ.—HYPERTROPHIC DISEASES

THESE are characterized by an augmentation of some of the normal elements of the skin, and are grouped under five heads: Hypertrophy, A, *of pigment;* B, *of epidermis and papillæ;* C, *of connective tissue;* D, *of hair;* E, *of nail.*

A. HYPERTROPHIES OF PIGMENT

In this group are found five distinct states: (1) *lentigo,* (2) *melanoderma,* (3) *chloasma,* (4) *morbus Addisonii,* and (5) *nævus pigmentosus;* all exhibit hypertrophy of pigment, deposited in varying degree and manner in the deeper cells of the rete Malpighii. Their treatment will be considered together.

1. **Lentigo.** Synonym: *Freckles.* This well-known deformity consists of deposits of pigment of small size, of a yellowish or brownish color, scattered mainly over the exposed portions of the skin. They

are most common in those having light complexions, especially persons with red hair; they may affect other regions besides those exposed to sunlight.

2. **Melanoderma.** This relates to various brown discolorations, which may occur from different causes, some local, others constitutional.

Ephelis.—Synonyms: *Sunburn; Tan.* This relates to the well-known effects of the sun, producing a general darkening of the skin.

Irritating agents, as blisters, often leave behind them a considerable discoloration of the integument. Long-continued cutaneous congestion and inflammation result in pigmentary deposits, as is observed after eczema of the lower extremities, in old cases of phthiriasis, and after many syphilitic lesions.

Again, pregnancy induces a discoloration about the nipples; cancer causes a general pigmentation, as also melanotic sarcoma, leprosy, scleroderma, etc. The long-continued internal administration of arsenic will sometimes result in a darkening of the skin, especially about the neck and chest.

Argyria.—This relates to a *mechanical* discoloration of a peculiar leaden or bluish color, which is brought about by the prolonged internal administration of nitrate of silver.

3. **Chloasma.** Synonyms: *Liver-spots; Moth.* This consists of yellowish-brown, pigmentary dis-

colorations of various sizes, situated chiefly about the face and neck; it is most commonly seen in females, but occurs also rarely in males. The surface is smooth and not scaly, unless irritated, and the margins of the patches are quite sharply defined; the forehead and temples are common localities, also about the mouth. The cause in females is frequently uterine or ovarian disease (*chloasma uterinum*), though it is quite probable that liver disorder is also an important element.

Diagnosis.—It may be mistaken for *tinea versicolor*, also for the *pigmentary syphilide* and *leucoderma.*

4. **Morbus Addisonii.** Synonyms: *Bronzed-skin disease; Supra-renal melasma.* The curious anæmic and cachectic state described by Addison as connected with disease of the supra-renal capsules, has often, as its first symptom to excite serious attention, a peculiar bronzing of the skin; this presents "a dingy or smoky appearance, or various tints or shades of deep amber or chestnut brown, most strongly manifested on the face, neck, superior extremities, penis and scrotum, and in the flexures of the axillæ and around the navel."

Diagnosis.—The only conditions which could be mistaken for this are a general *ephelis* or tanning, *chloasma*, *leucoderma*, *pigmentary syphilis*, and *tinea versicolor.*

5. **Nævus pigmentosus.** Synonyms: *Nævus spilus; Pigmentary mole.* This consists of a pigmentary deposit of varying size, color, and shape, often of congenital origin, but occasionally developing at any period; generally there are several of these deformities, which may be very small and are not uncommon on the face. This form of nævus may exist alone, or be combined with hypertrophy of other elements; the epidermis and papillary layer are often involved, and a rough, warty condition results (*acanthosis nigricans, nævus verrucosus*). When hair grows as well, it takes the name of *nævus pilosus*, to be described later.

Treatment of hypertrophies of pigment.—The location of the coloring matter deposited in all the lesions described is beneath the epidermis, either in the rete Malpighii, where pigment is found normally, or still deeper. It is difficult, therefore, to remove it by superficial applications, which remove the epidermis only; if attempted by agents which attack deeper tissues, a scar may result. If effected at all it must be by measures which modify the nutrition and cause the absorption of the pigment, or by repeated removal of the epidermis by such means as will induce the newly-formed cells to have less coloring matter.

These deformities are, therefore, unsatisfactory to treat. Peroxide of hydrogen, thoroughly applied

several times a day, sometimes acts very favorably, but also fails. Lotions containing bichloride of mercury (Formula 51) are of service, and if their action is too strong it can be modified by an ointment (Formula 98). Freckles sometimes yield to these applications, but are often rebellious; chloasma can be thus removed, or with lactic acid, diluted one or more times with glycerine, but is apt to return with a continuance of liver or sexual derangement. But little can be done for the forms of melanoderma; the discoloration accompanying Addison's disease and argyria is irremediable; pigmentary moles may be excised or destroyed by electrolysis or with strong potassa solutions.

B. HYPERTROPHIES OF EPIDERMIS AND PAPILLÆ

Six conditions of disease are recognized as belonging to this group: (1) *ichthyosis*, (2) *keratosis pilaris*, (3) *tylosis*, (4) *cornu cutaneum*, (5) *clavus*, and (6) *verruca*.

1. **Ichthyosis.** Synonyms: *Xeroderma ichthyoides; Fish-skin disease.* This, as the name signifies, is characterized by a dry, hard, scaly condition of the skin to a greater or less extent, in which, in marked cases, the epidermis may form polygonal plates, and assume an appearance suggestive of the scales of a fish; in severe degrees the papillary layer takes part

in the process and may be very considerably hypertrophied.

Most commonly ichthyosis is a congenital disease, sometimes being manifested at birth (*harlequin fœtus*); often several cases occur in a family, which, while manifesting but a slight degree of alteration during the first years, may increase greatly during childhood. The eruption is always most developed on the extensor surfaces of the body, especially on the elbows and knees, the flexor surfaces of these joints being spared, however greatly the disease is developed. In milder degrees it has the name *xeroderma*, dry or parched skin. Ichthyosis patients seldom perspire much, and the integument may be so dry and harsh as to crack and cause great pain. Two degrees or forms of the affection are recognized, (1) *ichthyosis simplex* and (2) *ichthyosis hystrix*.

ICHTHYOSIS SIMPLEX represents the milder degree, where the hypertrophy appears confined to the epidermis; the scales are not thick, and may be laid out in a strikingly regular form, showing the deepest fissures in lines of motion.

ICHTHYOSIS HYSTRIX.—Under this name have been described cases presenting a great hypertrophy of papillæ with heaped-up masses of epidermal tissue; this may occur over a considerable extent, or appear in localized patches, sometimes following nerve tracts (*neuropathic papilloma*). Different cases present very different grades of the disease, from a

few groups of brownish-yellow, wart-like excrescences, to large areas of almost horny productions, sometimes of deep color (*porcupine men*).

Diagnosis.—Milder cases resemble *squamous eczema, pityriasis rubra,* and possibly *psoriasis;* but all these have redness of skin, while ichthyosis is characterized by the leaden paleness of the integument.

Prognosis.—The condition is well-nigh incurable, but very great relief and benefit can be obtained by proper treatment. Young subjects should be persistently and actively treated when the disease is developing, as affording the best hope of escaping further trouble. In very severe cases, the pain and even deformity may be very great.

Treatment.—The very free internal and external use of oily preparations, as linseed and cod-liver oils, yields the best results, together with frequent alkaline baths (Formulæ 1, 2, 3); iron, hypophosphites, and other tonics are also often needed.

2. **Keratosis pilaris.** Synonyms: *Lichen pilaris; Pityriasis pilaris.* This is characterized by the appearance of minute, pointed, epidermal elevations about the orifices of hair follicles. The localities most commonly affected are the thighs and backs of the upper arms, but any portion may present the eruption, even the scalp. Sometimes the epidermic accumulation is very great, and may be associated with surrounding redness, and the surface may be

thickly set with conical elevations (*pityriasis rubra pilaris*); this may develop quite symmetrically, as on the backs of the hands or fingers, or elsewhere.

A rare affection has been described (*keratosis follicularis, Darier's disease, psorospermosis*), where the whole integument, beginning from above downward, may be involved in a papular eruption characterized by horny proliferation of the sebaceous and hair follicles; this has been claimed to be due to the presence of *psorosperms*, or *coccidiæ*.

Treatment.—The milder epidermic mis-growth is best treated by alkaline baths (Formulæ 1, 2, 3), or the free use of ordinary baths and soap, with the subsequent inunction of oily matter (Formula 112), cod-liver oil and linseed oil, and mild mercurial ointment (Formulæ 98, 99); internally, a persistent tonic treatment is required.

3. **Tylosis.** Synonyms: *Tyloma; Callositas; Callus; Callosity.* This consists of an abnormal deposit of epidermal cells, forming yellowish or grayish, horny masses of varying size and thickness, occurring especially on parts exposed to pressure or friction; this condition is an augmentation of that normally found on the soles and palms, and may at times give much annoyance. It differs from clavus or corn in its diffuse character, the absence of pain except when cracked, and its involving only the outer portions of the epidermis.

In rare cases the entire palms and soles may become the seat of this alteration (*keratodermie palmaris et plantaris*), and they become thickened and stiff, without any known cause, certainly not from pressure or friction. Sometimes the disease appears as small, hardened spots, with superficial erosions, and sometimes with a certain amount of congestive redness (*erythema keratodes*).

Treatment.—Relief is obtained by prolonged soaking in hot alkaline solutions, with the subsequent wearing of diachylon ointment (Formula 103), to which five to ten per cent. of salicylic acid is added. This should be worn night and day, thickly spread on the woolly side of lint.

4. **Cornu cutaneum.** Synonyms: *Cornu humanum; Cutaneous horn; Horny excrescence.* Cutaneous horns in structure resemble very closely the ordinary horns observed on the lower animals; they are usually of small size, but have been observed six inches in length. They are also of varying thickness, and rather abruptly conical. Human horns commonly develop on the head, from any portion of the face, but have also been noted in various portions of the body, and in a number of instances on the penis.

Treatment.—If a horn is torn off it regrows, unless the base is destroyed; it is necessary, therefore, either to excise the entire structure with its base, or

to destroy the latter very thoroughly with a deep-acting caustic, as the chloride of zinc or Marsden's arsenical paste (Formulæ 10, 12).

5. **Clavus.** A corn is a localized hypertrophy of the epidermis, in the form of a small, rounded mass, horny to the feel, projecting slightly from the skin; its base is conical, reaching down even into the true skin, which may atrophy by the pressure occasioned. Two varieties of corns are spoken of: (1) the *hard corn* when seated on an outer surface, and (2) the *soft corn*, located between the toes, where the parts are kept moist. Both are essentially the same, and both are due almost invariably to wrongly fitting coverings for the feet; both may give rise to serious inconvenience from the darting pains which occur when pressed upon, or even spontaneously.

Treatment.—The first step is to procure a properly fitting shoe, for without this the condition will recur in the same or another situation; often it is necessary to have special lasts made, but it also may suffice to wear different pairs of shoes on alternate days, that the pressure may come in other places. The ringed protective plasters in common use answer to keep off the pressure in a measure.

To remove the corn, soaking with hot water, or a poultice overnight, will soften the part and admit of its being dug or picked out with little pain. Painting the corn with a medicated collodion (Form-

ula 117) answers excellently, if carefully and persistently used. Corn plasters of the shops contain various softening agents, such as carbonate of potash and acetic or salicylic acid; most of them are probably harmless, and often ineffectual. Cutting or rasping frequently suffices, if attention be paid to the foot-covering. Soft corns yield to careful separation of the toes with picked cotton and oxide of zinc or tannin ointment (Formulæ 90, 94), with occasional touching with nitrate of silver, and the relief of pressure by properly fitting shoes.

6. **Verruca.** A wart represents a circumscribed papillary hypertrophy, with more or less epidermal accumulation; it may vary greatly in size and shape, quite different conditions presenting themselves in different situations. Four varieties may be made out: (1) *verruca vulgaris*, (2) *v. senilis*, (3) *v. digitata et filiformis*, and (4) *v. acuminata.*

VERRUCA VULGARIS.—Common warts are hard, at times almost horny excrescences, usually flat on the surface, which is marked by fissures representing the spaces between the hypertrophied papillæ. The upper portion may be pared down, but at a certain point the bleeding papillæ are reached, with the epidermal prolongations between them; the so-called "*seeds*" of warts are these hypertrophied epidermic masses, projecting down between the enlarged papillæ.

VERRUCA SENILIS.—This refers to the multiple, flat, dark yellow or brown, slightly horny elevations seen especially about the face, shoulders, and arms of elderly persons.

VERRUCA DIGITATA ET FILIFORMIS.—In this variety, seen mainly on the scalp and upon the face and neck, the growth is soft and long, often composed of several finger-like projections.

VERRUCA ACUMINATA.—This constitutes the so-called *venereal wart*, or *vegetation;* it is also known as the *pointed condyloma*, *spitze Condylom* of the Germans, to distinguish it from the *broad* or *flat condyloma* of syphilis, with which it has no relation; the latter is in reality a *mucous patch*, *mucous tubercle*, or syphilitic papule in a situation where it is kept continuously moist. Venereal warts occur commonly about the genital and anal regions, and exhibit clusters of papillary growths, generally pointed on the extremity, red and succulent, and often bathed in a purulent secretion; they sometimes attain great size. They are not, strictly speaking, venereal, for although the acrid secretions of gonorrhœa and chancroid favor their growth, they are often found entirely distinct from any possible venereal cause, and are observed on other portions of the body than the genital region.

Treatment.—Common warts often disappear spontaneously; they may also be removed very conveniently and satisfactorily by means of the curette or

sharp spoon. Caustics of various kinds may be used, after paring down the wart, care being taken not to cause too much destruction. They disappear slowly under the application of diluted acetic acid, applied morning and night; equal parts of tincture of iron and diluted muriatic acid are also effective. Arsenic internally, also, is sometimes followed by their disappearance. Venereal warts, when small, may be snipped off and the base cauterized with carbolic, glacial-acetic, or strong nitric acid; when large they will shrivel under the per-sulphate of iron, also under the tincture of thuja occidentalis, and may then be removed by the knife, sharp spoon, or ligature.

C. HYPERTROPHIES OF CONNECTIVE TISSUE

Five names appear in this division, (1) *sclero-derma*, (2) *morphœa*, (3) *sclerema neonatorum*, (4) *elephantiasis* (*Arabum*), and (5) *dermatolysis*.

1. **Scleroderma.** Synonyms: *Scleriasis; Sclerema; Dermatosclerosis; Hide-bound skin.* As the name signifies, this is characterized by a hard, sole-leather-like condition of the skin, of a greater or less extent, which may occasion much discomfort by its rigid, tense, and immovable state, and even pain by its tendency to contract. In some instances the alteration is limited in extent, as in a band on the face, or along or around a limb, or on the body, often following a nerve tract; or again the disease may be

more general, and involve the entire limb or the trunk, and in the latter case cause great distress by interfering with respiration.

Generally the alteration of skin commences insidiously, and the hardening is the first feature noticed; in rare cases, and when more general, it may be preceded by chilly feelings and pains, or a numb sensation in the part. When well developed, the skin is of a brownish-yellow, waxy look, generally on a level with the surrounding integument, with or without slight scaling, and so stiff, hard, and board-like, that it cannot be pinched up or slid upon the tissues beneath.

Etiology.—This is entirely unknown, except that it is supposed to be a disorder of the vaso-motor nerves, and sometimes may be traced to sudden chilling of the surface; the disease is very rare (but 8 cases occurred among the 20,000).

Diagnosis.—The only condition which much resembles this is *morphœa*, which by some is considered to be the same affection, more localized; diffused cancer, especially of the trunk, *cancer en cuirasse*, may also be mistaken for scleroderma in this region. Some cases of *tylosis* and *eczema of the palm* present a hard condition, which has been wrongly called scleroderma, with which there is no connection whatever.

Prognosis.—This is always very unfavorable.

Treatment.—Very little can be accomplished by internal medication; nerve tonics and oily substances

are most indicated. Locally, electricity has been found of service; Turkish baths and hot baths, with stimulating inunctions (Formulæ 111,112), offer the best prospect of improvement. The disease sometimes disappears spontaneously; often it remains for a long period stationary, and sometimes it progresses rapidly until even great areas are involved.

2. **Morphœa.** Synonym: *Circumscribed scleroderma.* The features of the diseased skin in morphœa resemble those of scleroderma, in the hard, lardaceous character of the affected portion, and the impossibility of pinching it up, and in its dirty yellowish color. But it differs from that disease in the limited extent and commonly roundish shape of the multiple patches, which are surrounded by a pinkish, congestive border or halo; their outline is often very sharply defined, so that their edge can be detected by palpation with the eyes shut; this contrasts strongly with the indefinite outline of scleroderma, which merges insensibly into the healthy skin.

Writers are by no means agreed upon all the characteristics of morphœa, as sometimes cases present very peculiar phenomena; the process which in its earlier and more characteristic phases exhibits the elements of hypertrophy, and the infiltrated, leather-like skin, may at a later stage show atrophy, although at times resolution takes place, leaving healthy skin. The disease is pretty certainly of neurotic origin; it

is much more common in females than in males (18 females, 3 males, in 20,000 cases).

Diagnosis.—The only lesion liable to be confounded with morphœa is *scleroderma*, from which it is differentiated by the features given in the accompanying table. The so-called morphœa patches of leprosy have nothing to do with this disease, but are only one phase of its skin lesion.

MORPHŒA	SCLERODERMA
Beginning.—Generally from a purplish congestive spot; new ones being often observed in the neighborhood.	Begins insensibly over considerable areas, the hardening being the first change observable.
Margin.—Sharply defined and generally bordered by a congestive halo.	Illy defined edge merging insensibly into healthy skin; no congestive halo.
Extent.—Generally small and circular or oval; an extended patch is usually composed of several others.	Generally greater expanse affected, and the neighboring parts involved by extension.
Condition.—Tolerably movable; hardness rather waxy.	Firm and immovable; hardening more diffuse.
Color.—Pretty uniformly of a tawny yellow, old ivory color.	Apt to be irregularly pigmented.
Tendency.—Sometimes disappears spontaneously, or, if remaining, generally causes little inconvenience; seldom, if ever, contracts.	Exceedingly persistent, with a tendency to increase and to cause distress by contraction.
Duration.—Increases rather rapidly and sometimes disappears in a few months.	Generally increases slowly, and may remain for years, or until death from intercurrent disease.

Treatment.—Very little can be said in regard to

this; tonics, and especially arsenic long persisted in (Formula 66), are of most value, with electricity locally, and mercurial inunctions (Formula 102).

3. **Sclerema neonatorum.** This very rare affection occurs soon after birth, and is generally fatal. It commences with an œdematous infiltration, the skin being hard, tense, and of yellowish, brownish, or even a livid purple hue; it is generally observed first upon the feet or calves, and extends rapidly upwards. There are with the stiffened skin, pain, convulsive movements, scanty urine, and failing strength, and the child generally dies with some affection of the lungs.

Œdema neonatorum resembles this in many respects, but the infiltrated tissue is more boggy and pits on prolonged pressure.

Treatment.—This has generally proved unsuccessful. External warmth, by baths and other means, with inunctions, together with stimulants, offer the best prospects.

4. **Elephantiasis (Arabum).** Synonyms: *Pachydermia; Bucnemia tropica; Elephant leg; Barbadoes leg.* This disease is to be entirely disassociated from elephantiasis Græcorum, which is now known as lepra or leprosy. It is characterized by an hypertrophic thickening of the skin and subcutaneous tissue, with œdema and subsequent papillary hyper-

trophy; the most common seat of the disease is one lower extremity, rarely both; next the genital parts, and rarely the upper extremities and breasts; it may, occasionally, be quite localized, as on the lips. The disease begins with repeated attacks of cutaneous inflammation like erysipelas, of greater or less severity, leaving some thickening after each accession, until, after a varying period, the part is found to be greatly increased in size, quite hard, and more or less pigmented, and in older cases presenting papillary prominences and fissures; the swelling is found to be somewhat œdematous, but the amount of pitting on pressure may be very slight.

Etiology.—The disease is essentially connected with obstruction of the venous or lymphatic circulation; the lymphatics are greatly increased in size, and the mass of the disease consists of hypertrophied connective tissue. It is most frequent between the ages of twenty-five and sixty, and is far more often seen in males than females, and especially among the poor. The affection is common in warm countries, but occasional cases are met with in every land. The etiology of sporadic cases is often very obscure, but in the tropics it is caused by the presence of the *filaria sanguinis*, which has also been found in the lymph exuded from the vesicles occurring in *lymph scrotum*, a condition which is believed by observers in the East to be identical with elephantiasis.

Diagnosis.—Certain cases of *chronic eczema* of the feet and legs may exhibit such a thickening and papillary hypertrophy as to resemble elephantiasis; the swelling attendant upon *phlegmasia dolens* may also resemble this disease. In *acromegaly* the thickening or enlargement of the fingers and toes, and about the face, would often suggest elephantiasis.

Treatment.—In earlier stages, quinine in full doses is recommended, with diuretics and rest, together with cooling antiphlogistic measures. When fully developed, the rubber bandage, used as described under eczema of the legs, affords the best results upon the legs; when the disease affects the genital parts, excision gives good results.

5. **Dermatolysis.** Synonym : *Cutis pendula.* This consists of an hypertrophy of the connective-tissue elements of the skin of any portion, to such an extent that it hangs in folds; this may be so slight as to cause little annoyance, or may increase to an excessive degree. Any region may be affected, and cases are reported where the condition has assumed monstrous proportions and very curious aspects. The causes of this freak of nature are unknown.

Treatment.—Operation with the knife affords a satisfactory means of relief.

D. HYPERTROPHIES OF HAIR

Two hypertrophic conditions of hair are found

here, (1) *hirsuties* and (2) *nævus pilosus;* the former represents excessive hairy growth, on parts normally supplied with long hair, or in situations provided only with *lanugo;* the latter refers to localized hypertrophy of hair, in patches, which generally exhibit, also, hypertrophy of pigment.

1. **Hirsuties.** Synonyms: *Hypertrichosis; Polytrichia; Trichauxis; Augmented hairy growth.* Individuals vary greatly in the amount of hairy development, and various instances are on exhibition, from time to time, where the normal hair of the head or beard is augmented very greatly, or even where the entire body and limbs present an excessive growth. Medically, hypertrophy of hair is of special interest when it develops in unusual situations, as on the face and arms of females, which it may do to a varying degree, from a few straggling stiff hairs on the chin or upper lip, to a completely bearded condition.

Etiology.—No satisfactory cause is established for the excessive growth of hair on the face of women; it frequently occurs in those of masculine qualities, although in some of the most marked instances of those having a full beard quite the contrary is observed, and they have been mothers of families. In a certain number of those thus affected, uterine or ovarian disease is present, and insanity has also been noticed in this connection.

Treatment.—To be effectual the life of the follicle and the hair papilla must be destroyed; consequently, in the case of hairs of any size, the "depilatories," so largely advertised to permanently remove this condition, are not to be relied on. For the removal of finer hairy growths they may occasionally prove sufficient, but they generally stimulate them to greater hypertrophy. Depilatories are agents which soften and dissolve the hair in the same manner as, but to a greater degree than, soap, when used for shaving; they are put on as a paste, and left five to ten minutes on the skin and then scraped off.

When of some size the superfluous hairs may be permanently removed by electrolysis: the *negative* pole is attached to the needle, and the positive is held in the patient's hand, a current from between six and twelve cells being employed; the current is to be completed by the patient touching the electrode in the hand after the needle is *in situ.* The needle is introduced while the hair is yet in its follicle, and the electrolytic action loosens the hair with the formation of a foam around it, when it can be readily extracted.

This destruction can also be accomplished by introducing a straight glover's needle, dipped in carbolic acid, into each follicle, after the extraction of the hair, and rotating it several times. With either of these processes a certain proportion of hairs re-

grow. Much relief can be obtained in the finer growth, as on the lips of ladies, by the free daily use of the peroxide of hydrogen, which not only bleaches the hairs, but also seems to diminish their number and vitality.

2. **Nævus pilosus.** Synonym: *Hairy mole.* With hypertrophy of hair in small localized patches there is generally a pigment deposit, and some little papillary hypertrophy, whereby the surface is slightly raised. Hairy moles may be of various sizes and shapes, even to covering a portion of the face or body.

Treatment.—Small moles can often be removed by electrolysis, used as for hirsuties. Caustic potassa, in very strong solution, carefully applied, will destroy the whole growth and leave a moderate scar; unless too large, excision is to be preferred.

E. HYPERTROPHIES OF NAILS

The nails may become affected in many diseases, as was briefly mentioned in connection with the subject of onychia. Hypertrophied conditions of the nail receive the general name *onychauxis.*

Onychauxis. Under this term are included anomalous conditions of nail, represented by the development of superfluous nails, and also the excessive growth of a previously normal nail. The nail may

become increased in length, breadth, or thickness, and variously distorted by disease. When greatly overgrown it may become curved or twisted (*onychogryphosis*), and cases are on record where such have attained great length. As a result of mis-growth the nail may be greatly thickened and elevated from its matrix, and may be much harder than normal, or friable and split, or furrowed transversely.

Etiology.—Hypertrophic changes in the nails can result from many causes, and be congenital or acquired. In addition to the conditions produced by such diseases as eczema, psoriasis, dermatitis exfoliativa, ichthyosis, etc., the same may occur after neuritis and myelitis, also in chronic rheumatism, elephantiasis Arabum, etc. Most commonly, however, the cause is found to be local, from traumatism or some inflammatory change of the matrix.

Prognosis.—This should always be guarded, for nail disease is exceedingly rebellious.

Treatment.—Search should always be made for local and general conditions causing and keeping up the trouble, and efficient general treatment be carried out. Locally, removal of troublesome nails by cutting and scraping, after softening with hot water and alkalies, with the continuous use of the diachylon or other ointment (Formulæ 93, 97, 103), gives the best result. When the trouble is on the toes most careful attention should be paid to the foot-covering.

CHAPTER XVIII

CLASS VII. ATROPHIÆ.—ATROPHIC DISEASES

THIS class of affections is characterized by an atrophy of the elements of the skin and its appendages, and is subdivided into four groups, relating to: Atrophy, A, *of pigment;* B, *of corium;* C, *of hair;* and D, *of nail.*

A. ATROPHIES OF PIGMENT

Three disease states are placed here, namely: (1) *albinismus,* (2) *leucoderma,* and (3) *canities.*

1. **Albinismus.** Synonyms: *Albinism; Leucasmus universalis; Congenital leucopathia.* This has reference to a congenital condition observed in certain individuals who are called Albinos, in whom there is an absence of pigmentary matter not only in the skin, but also in other portions of the body; the skin is of a milky white, the hairs everywhere are of a white or very light color, and the eyes have a peculiar pinkish or bright-red color, and are very sensitive to light, owing to the absence of pigment in the iris and choroid.

Etiology.—The cause of the anomaly is entirely

unknown; it is most common in the negro race, and in the same family some children may be very black and others perfect Albinos. Partial *achromia* with white patches or streaks of various sizes may also occur congenitally in the negro; when developed subsequently, its condition belongs to that next described.

2. **Leucoderma.** Synonyms: *Vitiligo; Leucopathia acquisita; Cutis variegata; Acquired leucasmus; Piebald skin.* This consists of an irregular distribution of the pigment matter of the skin, whereby smooth, rounded, white patches of varying size and extent are produced, surrounded by an area in which the pigment is augmented. The surface is devoid of scales and on a level with the surrounding integument, and there is no abnormal sensation experienced in the parts. The most common location for the disease is upon the backs of the hands and fingers, and on the neck, but any region of the body, or a considerable portion of it, may ultimately be affected; these cases are often exhibited in museums as "spotted men."

Diagnosis.—It is to be distinguished from *chloasma, tinea versicolor*, and *morphœa.* It has no connection with leprosy, although it has sometimes been described as *white leprosy;* nor has it any relations to syphilis, although the *pigmentary syphiloderm* may resemble it very closely.

Prognosis.—This should be very guarded; in the majority of cases the condition persists in spite of all treatment.

Treatment.—Nerve tonics are mostly to be recommended (Formulæ 66, 69), and I have seen very marked benefit from the use of phosphide of zinc and nux vomica (Formula 82) taken internally; as the eruption sometimes varies spontaneously, the real value of treatment cannot always be determined. Local applications of bichloride of mercury and ammonia (Formulæ 51, 98) certainly benefit many cases. The deformity may sometimes be masked by the judicious use of stains, as fresh butternut, permanganate of potash, etc.

3. **Canities.** Synonym: *Grayness of the hair.* The causes of the turning gray of the hair are entirely unknown; while it is a common sign of age, the period at which the hair changes varies very greatly in different individuals, and often appears to be a family peculiarity. In many instances prolonged grief and trouble cause it to whiten early, and undoubted cases are on record where sudden fright or sorrow has caused the change to take place within a single day. It is not very uncommon to have tufts of gray hair over the track of nerves which have been the subject of neuralgia; the hair on patches of leucoderma is usually white.

Although all signs point toward a nervous influ-

ence in producing the change, it is very difficult to accomplish much by treatment, in the way of restoring the normal condition, although not infrequently very marked improvement will follow very full courses of iron internally, and active treatment for alopecia.

B. ATROPHIES OF THE CORIUM

Three affections are recognized here: (1) *atrophia cutis*, (2) *atrophia senilis*, and (3) *xeroderma pigmentosum.*

1. **Atrophia cutis.** Synonym: *Atrophoderma.* Atrophy of the skin may occur as a more or less general condition in connection with other diseases; it is also seen to follow injury of nerves (see *dystrophia cutis*), the glossy skin of writers. Atrophy, as here considered, may appear (1) as a *symptomatic* condition, in parts which have been greatly distended, as in the *liniæ albicantes*, seen on the abdomen after pregnancy and tumors, also on the breasts, and on anasarcous legs.

It also occurs (2) as an *idiopathic* condition, without known cause, constituting the *striæ atrophicæ*, and *maculæ atrophicæ;* these appear as separate, white, slightly depressed streaks or spots, long or rounded, exhibiting evident atrophy of the deeper structures, and may be found in any situation. They evidently depend upon defective innervation, as does also *hemiatrophia facialis*, which exhibits atrophy not

only of the skin, but also of the subcutaneous and even muscular tissue.

2. **Atrophia (cutis) senilis.** Senile atrophy of the skin is mainly important as being a factor in the causation of the pruritus which is common in old age. The senile alterations which take place in the integument are characterized by thinning of the whole skin and atrophy of the papillary layer, alteration in the sebaceous glands, and a diminution in the elasticity and extensibility of the skin.

3. **Xeroderma pigmentosum.** Synonyms: *Angioma pigmentosum et atrophicum; Atrophoderma pigmentosum.* This very rare disease exhibits a variety of clinical symptoms and pathological states, and its nosological position is still uncertain. It begins usually in childhood by the development of yellowish-brown, freckle-like spots, first on the exposed parts. With these are developed small vascular points and white, shining, cicatrix-like areas, and a general parchment-like condition of the skin, with some scaling. As the disease progresses, warty excrescences develop, which later assume the character of epithelioma or sarcoma, and may ulcerate and be the cause of death.

Nothing is known as to the cause of the disease; it is apt to affect several members of a family, and females particularly. No treatment has thus far proved of any avail.

C. ATROPHIES OF HAIR

Four disease states are found in this group: (1) *ordinary alopecia*, (2) *alopecia areata*, (3) *trichorrhexis nodosa*, and (4) *fragilitas crinium*.

1. **Alopecia.** Synonyms: *Alopecia prematura, simplex*, or *vulgaris; Trichorrhœa; Defluvium capillorum.* Baldness may result from many different causes, and exhibits different characteristics accordingly; it may be spoken of as symptomatic and idiopathic.

SYMPTOMATIC BALDNESS.—The hair may fall as a result of severe sickness, and also after pregnancy, and as a consequence of a number of diseases which affect the scalp; these are *syphilis, erysipelas, dermatitis seborrhoica, eczema, psoriasis, seborrhœa, favus, ringworm*, and *lupus erythematosus.* There are two periods at which *syphilitic* alopecia is met with: First, during the earlier stages, in conjunction with general eruptions, iritis, etc., when it falls in a peculiar patchy manner, giving the surface a moth-eaten appearance; and, second, during a later period, from the cachexia sometimes observed, accompanied with seborrhœa. The hair lost early in syphilis, and in consequence of erysipelas and acute eczema of the scalp, tends to return as these are removed.

After fevers and pregnancy the hair generally regrows spontaneously under proper conditions of

health, and much of the reputation of so-called "hair-restorers" rests on apparent success in these cases.

The most fertile cause of baldness is *dermatitis seborrhoica*, and also a low grade of chronic eczema; both manifest abundant scales or dandruff; those of the former are more greasy, while in eczema they are dryer and more branny, and there is commonly considerable itching. Long-continued favus and lupus erythematosus are very prone to leave permanent baldness by destroying the follicles, causing scarring; ringworm seldom does more than temporarily destroy the hair.

IDIOPATHIC BALDNESS.—This results from failure in the hair-producing powers of the follicles, and that which is a natural event in advancing age may occur as disease during early years. Premature loss of hair is common in some families, as also early turning gray, and where this strong hereditary tendency exists it is very difficult to arrest the falling or to restore that which is lost. The family history of early loss of hair, however, need not always indicate an unfavorable prognosis, because each case may have been due to causes which were remediable.

Etiology.—Debility and dyspepsia, either directly or through the agency of dermatitis seborrhoica or squamous eczema, are the most frequent causes of early loss of hair, together with faulty diet. Continuous and severe mental application, likewise severe nervous strain, can also cause the hair to fall.

Treatment.—Symptomatic baldness is treated by measures suited to the disease present, and by the subsequent use of stimulating hair lotions (Formulæ 56, 57, 58). Where cicatricial tissue has formed, all efforts are of course useless. It is very important to determine whether dermatitis seborrhoica or chronic eczema is present, for unless these conditions are recognized and treated properly, as already described, but little permanent gain will result.

Attention should always be paid to the general health in cases of idiopathic alopecia; for it is often only a sign of bad nutrition, which is to be met in every possible way, by diet, hygiene, and internal medication. The increase of the phosphates (as in the whole wheat preparations) and fat, including milk, in the dietary is important. Iron, arsenic, strychnia, phosphoric acid, and many other reconstructive tonics often are of great service in promoting the growth of the hair.

Locally the lotions just mentioned under symptomatic baldness are of service, used night and morning, together with shampooing every two or three weeks with tincture of green soap (Formula 41); after washing, the scalp should always be dried with hot towels, and the lotion be *immediately* reapplied.

2. **Alopecia areata.** Synonyms: *Area Celsi; Porrigo decalvans; Tinea decalvans; Pelade.* This is characterized by the appearance, upon an otherwise

apparently healthy scalp, of one or more sharply defined, perfectly bald, smooth, white, and shiny spots; these may remain and increase in size, or slowly regain their normal condition by a growth of fine downy hair, which subsequently may become quite normal. The disease usually appears very suddenly, and often on awaking in the morning the patient or friends will discover a spot, generally roundish, completely devoid of hair, of a size varying from half an inch upward in diameter. The most common seat for the first appearance of the disease is either parietal region, or the top of the head. The beard may also be affected either primarily or later in the disease. The condition may remain stationary for a considerable period, or may advance rapidly or slowly, even until every hair is removed from the entire body. In certain rare cases all the hair of the scalp will be loosened at once and come out with the slightest touch at any point.

Etiology.—The cause of the falling of the hair must be looked upon as neurotic, although opinion is still divided as to its true nature. Many have considered it to be caused by a vegetable parasite, to which the name *microsporon Audouini* has been given. The disease is fairly common, there being 193 cases, or almost 1 per cent., among the 20,000 analyzed. The youngest patient I have seen affected was a girl of four, the oldest a man of seventy; it

seems to be much more common in males than females (123 to 70).

Diagnosis.—The only eruption liable to be mistaken for alopecia areata is *tinea tonsurans*, which occasionally will exhibit quite bald and smooth patches, "*bald ringworm*," much resembling the disease under consideration. Early syphilitic alopecia may also present bald areas.

Prognosis.—This should always be guarded, as occasionally the disease will prove most rebellious even for years.

Treatment.—Internal treatment has very little immediate effect, but is of great importance in reference to ultimate cure; it should always be tonic, with especial reference to the nervous system (Formulæ 66, 69, 70). Phosphates should be supplied in the diet, as in preparations from the whole wheat, and fish; also fats.

The *local* treatment is embraced in the single word stimulation. The simplest and most effective application is that of pure carbolic acid. A bit of cotton wound on a wooden toothpick is dipped in the acid and thoroughly rubbed over the affected area, care being taken not to apply it to too great an area at once; my limit has generally been about two square inches: it is also rubbed among the hairs a short distance around the patch. While pure carbolic acid acts as a caustic elsewhere on the skin, I have never seen harm from its use in this disease,

having applied it to dozens of cases with excellent results. The surface whitens and in a week or ten days the epidermis exfoliates, when it may be reapplied; after two or three applications it is well to wait a while, to observe the results. Where a large surface is involved, stimulating lotions (Formulæ 56, 57, 58) are applicable, increased in strength with acetum cantharidis until their action is severe. Sulphur ointment, well rubbed in, is also a good application. Injections under the skin of the nitrate of pilocarpin, one-tenth grain every few days, or oftener, will sometimes act wonderfully well.

3. **Trichorrhexis nodosa.** In this disease there is a peculiar alteration in the shaft of the hairs, whereby nodosities, of a whitish appearance, occur singly or at intervals along the hair; the hair is liable to break at these swellings, and the ends have a brush-like appearance. It is not a very uncommon complaint, especially in women, but may not be recognized at first, because the hairs have been broken off and only the short hair with brush-like end is seen; it may also attack the moustache and beard. The disease is not contagious, though some writers believe that it is due to a hitherto unrecognized micro-organism; it is more probably a nutritive derangement.

Treatment.—The disease is very rebellious, and no satisfactory line of treatment is known, although the condition gradually ceases under prolonged

tonics of a neurotic character, with cod-liver oil, and local treatment suitable to alopecia.

4. **Fragilitas crinium.** Synonym: *Atrophia pilorum propria.* In this the hairs fracture easily, generally breaking only in part, then stripping down the shaft. In other instances they break at their exit from the skin, and the illy growing hair irritates the follicle; not very infrequently the hair, especially of the beard, will be seen to curl itself up just beneath the epidermis, and sometimes cause considerable irritation.

A number of other curious mis-growths of the hair have been reported, which need not be dwelt upon here. Such is *monilithrix*, a peculiar condition, in which the hair shaft presents a series of fusiform swellings; also *ringed hair*, where there are alternate bands of white and color, the shaft being of normal size and shape.

D. ATROPHIES OF THE NAIL

Two conditions are noted here, (1) *onychatrophia* and (2) *leucopathia unguium.*

1. **Onychatrophia.** Synonyms: *Degeneratio unguium; Mollities unguium.* In psoriasis the nails are apt to be covered with little pits or apparent erosions; in eczema they may be mal-formed and

thickened or thinned and rendered very fragile. In phthisis the nails are thin and apt to be curved, and they may also be affected in many general and nervous diseases. As an idiopathic condition we occasionally find the nails thin, fragile, and easily split when buttoning the clothes; in other cases the nail is furrowed lengthwise. After severe illness an atrophic furrow appears as the nail is growing out, corresponding to the date and duration of the illness.

All these changes have to do with errors of nutrition, and are to be met by the most assiduous attention to the general health, with blood- and nerve-tonics, diet, and hygiene. Locally, oxide of tin, or sub-nitrate of bismuth in ointment (ʒss *ad* ℥j), continuously applied aids somewhat.

2. **Leucopathia unguium.** The alteration in substance ordinarily observed in some of the nails of healthy persons, as white flecks or clouds, may under conditions quite unknown increase to an extent regarded as pathological, and to this the above name has been given. The change of color may involve much of the nail, and curious instances have been recorded where there were many distinct bands of white, also where the whole nail became affected. The alteration is due to the presence of air between the lamellæ of the nail, and is supposed to be of tropho-neurotic origin.

CHAPTER XIX

CLASS VIII. NEOPLASMATA.—NEW GROWTHS

TWO subdivisions occur in this large and important class, relating to, I. *Benign new growths*, and, II. *Malignant new growths;* these differ more in their clinical features and tendencies than in any pathological characters. They are characterized by a deposit of elements which may correspond to the normal tissues of the skin, such as connective tissue, blood-vessels, lymphatic tissue, etc., or they are composed of cellular elements which destroy the life of the part and produce scars.

I. Benign New Growths

The diseases in this division give trouble by their presence and unsightly character rather than by any tendency to cause great pain or to destroy life; seventeen diseases are thus classed in eight subgroups: New formations, A, *of cellular tissue;* B, *of connective tissue;* C, *of fatty tissue;* D, *of muscular tissue;* E, *of blood-vessels;* F, *of lymphatics;* G, *of glandular tissue;* H, *of nerves.*

A. NEW GROWTHS OF CELLULAR TISSUE

This group embraces six diseases: (1) *lupus vulgaris*, (2) *tuberculosis verrucosa cutis*, (3) *scrofuloderma*, (4) *lupus erythematosus*, (5) *rhinoscleroma*, (6) *molluscum contagiosum;* some of these approach closely to the second division, namely, malignant new formations, in their pathological features, as well as in their occasional destructive tendency.

1. **Lupus vulgaris.** Synonyms: *Lupus exedens; Lupus tuberculosus; Lupus hypertrophicus; Scrofulide tuberculeuse.* True lupus is rare in this country, but 77 cases occurring in the 20,000 analyzed, or hardly four per thousand; tubercular syphilis which may simulate lupus, and to which the term *syphilitic lupus* is sometimes given, is excluded; true lupus has no connection with syphilis.

Lupus vulgaris consists of a new deposit of cellular elements, forming reddish or brownish masses, which are soft and pulpy, more or less translucent, sometimes spoken of as "apple-jelly-like," and are followed by cicatrices. The cellular deposit may be in distinct papules or tubercles, or, as is frequently the case, may infiltrate larger portions; in older cases an evenly affected surface is often seen, interspersed with cicatricial bands, and covered with epidermal scales of some size, firmly attached on one edge, or with crusts over some portions. Many

of the cases presenting great ulceration and destruction of tissue, formerly called lupus exedens, and *noli me tangere*, "touch me not," are now recognized to be epithelioma or rodent ulcer, and syphilis. True lupus is very rebellious, and may cause disfigurement and distress, but very rarely makes the inroads described in older books as belonging to the disease, which gave rise to the Latin name lupus, a wolf. It is most commonly seen upon the face and extremities, and is much more common in females than in males (57 to 20 in the 20,000); it generally commences in young life, before twenty, and rarely, if ever, begins after fifty years of age.

Etiology.—Lupus vulgaris is now recognized to be due to the irritative presence of tubercle bacilli, although the mode of infection and the causes which favor, and admit of, the action of the bacilli have not been established; and its direct connection with tuberculosis elsewhere is seldom observed. Localized tuberculosis of the skin will be considered later.

Diagnosis.—Lupus vulgaris is most frequently confounded with tubercular and gummy *syphilis*, also with *scrofuloderma*, *lupus erythematosus*, and *epithelioma;* it should never be mistaken for other eruptions. The history and the rapid development of the lesions of syphilis, together with their characteristic grouping, their tendency to heal and reappear, and the crusts generally seen, should suffice to distinguish the syphilitic eruption.

Treatment.—This is frequently very unsatisfactory; *internal* measures have comparatively little immediate effect, but every element should be attended to looking toward improved health and nutrition. Cod-liver oil is often of some service, also phosphorus and iodide of potassium. Arsenic given in very large and frequently repeated doses and continued for a great length of time will often control the disease.

Local measures, to be effectual, must be energetic; the disease itself produces scarring, and the object of treatment is to destroy diseased tissue, and to substitute healthy inflammatory action for disease. Nitrate of silver in stick, thoroughly bored into the nodules until healthy tissue is reached, is one of the best measures; the surface is to be covered with picked lint, which dries into a crust and falls off in some days; any remaining disease should be immediately attacked anew. Very thorough curetting, with boring deeply of all nodules, followed by free application of carbolic acid, will often yield excellent results; multiple scarification with subsequent disinfection has also been highly praised, as also electrolysis. Caustics in paste or ointment, as arsenic and red iodide of mercury (Formulæ 12, 14), answer if efficiently applied, but are slow and painful; also acetate of zinc in crystal, and chloride of zinc. Lately, complete excision, with skin grafting, has been very highly praised.

2. **Tuberculosis verrucosa cutis.** Synonyms: *Verruca necrogenica; Post-mortem tubercle.* While lupus vulgaris is the expression of irritation from tubercle bacilli acting from within, probably through the lymphatics, the disease under consideration represents that caused by the local inoculation of the same, the effects of which generally remain local.

This appears mainly on the hands of those who have to do with dead animal matter, in connection with post-mortems, and also on butchers, cooks, and others; but occasionally it occurs in those who have apparently not been thus exposed; this, however, is now readily understandable, in view of the almost omnipresence of the tubercle bacilli in many communities. It begins usually with an abrasion which is slow to heal and which gradually develops into a rather hard, slightly raised, more or less warty condition with a violaceous border; the surface has a small amount of hardened epithelial matter, and occasionally pus forms below and oozes out. The lesions resist ordinary measures and tend to slowly increase in size, and in one instance I have seen almost the entire left hand covered with the disease, which became very painful.

Treatment.—In some instances thorough erasion with the curette is necessary, followed by antiseptic dressings. In many cases the lesions will yield to strong salicylic acid paste (50 per cent.) or to repeated cauterizations with the acid nitrate of mercury.

3. **Scrofuloderma.** This term has been very loosely applied in time past, and, with advancing science, many conditions which were thus named are now recognized as other affections, such as lupus, late or hereditary syphilis, etc. But clinically there is an illy defined, though practically acknowledged, condition or state of the system, called scrofula or struma, in which suppuration easily occurs, and lymphatic disease readily manifests itself. The local lesions are undoubtedly excited by micro-organisms, pus-cocci, tubercle bacilli, etc., but the lowered vitality and vulnerability of tissue plays a very important part etiologically and therapeutically.

The most common form of the disease is that observed to take its origin from lymphatic glands, as when they become enlarged and suppurate beneath the jaw, or in the region of the clavicle; here the resulting cutaneous ulceration is of a purplish-red color, with undermined edges and indolent, granulating base, bleeding easily, with a sero-purulent discharge, often coming from a sinus communicating with the ulcer.

Other less common forms occur in various localities, as on the hands, in connection with strumous dactylitis, with sinuses sometimes leading down to diseased bone; or on the lower extremities, originating in the so-called "*scrofulous gumma.*" In these there is formed an indolent mass, of dull red color,

which gradually increases in size, breaks down, and gives rise to an intractable ulcer.

In addition to these fairly well-defined conditions, the strumous state is often manifested in connection with certain other eruptions. Thus, it may give rise to the large indolent abscesses of *acne indurata* and the scarring in *acne atrophica;* the suppurative tendency is also seen in *impetiginous eczema;* the effect of the diathesis is likewise observed in *lichen scrofulosorum*, and in *psoriasis*, in the crusty scales; in *syphilis* occurring in scrofulous subjects there is a greater tendency to obstinate ulcerations, etc.

Diagnosis.—The ulcerative lesions mostly resemble *syphilis*, *lupus*, and *epithelioma.*

Treatment.—The most careful and complete treatment suitable for the scrofulosis is that which is most appropriate for the diseased skin; this includes diet and hygiene, with such remedies as cod-liver oil, iron, lime, etc. *Locally*, the preparations of iodine, as the compound iodine ointment, aid absorption; mercurial ointments (Formulæ 101, 102) are also of service. The process tends to produce scarring, and if left to itself is very tedious; the earlier that radical measures are undertaken the better; erasion with the curette is often the best method of treating the strumous deposit, and many prefer early and complete excision.

4. **Lupus erythematosus.** Synonyms: *Ulery-*

thema centrifugum; Lupus erythematodes; Lupus sebaceus; Seborrhœa congestiva; Scrofulide erythemateuse. This is characterized by the presence upon the skin of one or more patches of infiltrated tissue, presenting congestive redness, and of a smoked-ham color, tending to become covered with grayish brown, adherent scales; upon the forcible removal of the scales, especially from patches occurring upon the face, they are found to have prolongations from their under surfaces, which extend into the ducts of the sebaceous glands, which are thus left gaping, giving much the appearance as though a needle had been thrust into reddened wax.

The beginning of the disease is often so slight that a correct diagnosis cannot be made; there is only a rather dusky, generally circular, erythematous point or patch, which persists in spite of medication, gradually thickens, and becomes scaly, accompanied with occasional pricking sensations; it is always dry from beginning to end. The most common location is the face, and especially the nose and cheeks, also the ears and scalp, although the disease may attack any portion of the body; the eruption may involve a considerable region by extension, or by the appearance of new spots; in certain rare cases the disease may develop rapidly over a considerable extent, and even be accompanied with constitutional and febrile conditions.

Etiology.—Nothing is known as to the cause of

the eruption; some have claimed it to be a tuberculosis, but proof of this fails. The disease should be clearly separated from true lupus vulgaris, already described. The eruption is most common in females (75 females to 28 males in 20,000), and is most frequently seen between the ages of twenty and thirty.

Diagnosis.—The eruption is liable at times to be mistaken for *lupus vulgaris*, *seborrhœa*, *chronic eczema*, *psoriasis*, *erythema multiforme* (*circinatum*), *ringworm*, *syphilis*, and non-eroding *epithelioma*. In rare cases erythematous lupus develops into lupus vulgaris, but commonly is distinguished from it by the absence of the pulpy tubercles belonging to the latter.

Prognosis.—This should always be guarded, for the disease is very rebellious.

Treatment.—Lupus erythematosus is very little affected by internal medication; phosphorus, in the form of Thompson's solution, in increasing doses, pushed to toleration, will sometimes act very favorably; iodide of starch has also been recommended.

Local treatment is of most service, but also often proves insufficient to remove the disease, and cannot prevent the development of new lesions. In earlier patches and congestive conditions, benefit can often be obtained by mildly astringent lotions (Formulæ 27, 30, 36), but commonly the treatment should be stimulating, soothing measures having but little effect. Soapy solutions or those of caustic potash

(Formulæ 17, 41, 42), well rubbed in, are valuable; they often cause considerable inflammation, but are followed by absorption if the surface is properly soothed (Formulæ 89, 90, 93) after the friction. The emplastrum mercuriale (Formulæ 19, 20) is also of value. Erasion, or scraping with the sharp spoon, is an effective plan of treatment, as also multiple scarification, repeatedly employed; the actual cautery produced by Paquelin's apparatus, or by galvanic action, is also of service.

5. **Rhinoscleroma.** This curious affection, which is almost unknown in this country, was first described by Hebra and Kaposi in 1870. It consists of a very hard, dense formation about the nose and its immediate neighborhood; the surface is either of normal color, or of a light or dark, brownish-red shade, and may be either flat or raised into prominences; it has little or no tendency to ulcerate, and heals kindly, but is reproduced, after destruction or excision. The mass gives little trouble except by its increased growth, but is somewhat painful when pinched. It has no connection with *syphilis*, and is quite distinct from *epithelioma* and *lupus*.

Treatment. — This is extremely unsatisfactory; Kaposi states that no successful method of treatment has been found.

6. **Molluscum contagiosum.** Synonyms: *Molluscum sebaceum; Molluscum epitheliale.* This con-

sists of small, pearly, or slightly reddened, globular masses, projecting a little from the skin, generally with an opening in the centre, from which can be squeezed a cheesy or milky substance. There may be one or many, and they may increase slowly in size or remain stationary for a long time, and seldom give rise to pain, but may become irritated or chafed. They are more common in children than in adults, and occur most frequently about the face, eyes, and temples, but may be seen on any part of the body, as on the shoulders and back, and about the genital region. The disease is very mildly contagious.

Treatment.—The little tumors may be easily removed with the curved scissors, and the base should be burned with nitrate of silver; or they may be destroyed by boring them with a bit of sharpened stick dipped in pure carbolic acid.

B. NEW GROWTHS OF CONNECTIVE TISSUE

Three diseases are grouped here: (1) *keloid*, (2) *fibroma*, and (3) *xanthoma*.

1. **Keloid.** Synonyms: *Kelis; Cheloid; Cheloidea.* This is a flat or rounded new growth of connective tissue, smooth and firm, generally elevated, of a reddish color, and of various shapes, usually presenting claw-like projections, and bearing much resemblance to the cicatrix from a burn. Writers have often spoken of a *spontaneous* or *true*, and of a

cicatricial or *false* keloid; it is questionable if in every instance the disease does not arise from traumatism, although individuals vary greatly in their tendency to the production of this new growth. It is observed to follow all sorts of injuries, also severely ulcerative affections, syphilitic and other, although very frequently the traumatic cause is unrecognized; the front of the chest is a favorite location. It is more common and apt to be larger in negroes than in the white races. The cause is unknown.

Diagnosis.—This is usually simple, owing to the peculiar features belonging to the disease; it is distinguished from ordinary *scars* by its tendency to spread slowly, and by pricking pains which generally occur.

Treatment.—No treatment is of much, if any, avail; destruction or removal in any way is generally followed by reproduction of the disease.

2. **Fibroma.** Synonyms: *Molluscum fibrosum; Molluscum simplex; Molluscum pendulum.* This consists of soft, roundish tumors, of various sizes, either pedunculated or imbedded in the skin, and of the color of the normal integument, unless when irritated or inflamed. There may be a single one, or multitudes; over three thousand have been observed on a single person. In some instances they have long pedicles, and occasionally may attain great size; they consist of connective tissue with more or less serous and mucoid elements.

Diagnosis.—The tumors differ from *molluscum contagiosum* in being solid, and having no central opening; fatty tumors or *lipomata* are apt to be lobulated and more flat; *sarcomata* are more round and solid.

Treatment.—Removal by excision or ligature.

3. **Xanthoma.** Synonyms: *Xanthelasma: Vitiligoidea: Fibroma lipomatodes.* This is characterized by the presence of one or several spots or patches of yellow or buff-colored tissue, either on a level with the skin or slightly raised, smooth and velvety on the surface. It is most commonly seen upon the eyelids (*xanthoma palpebrarum*), in patches of varying size and shape, but may also affect many portions of the body; it is much more frequent in females than males (20 females to 8 males in 20,000), and is rare in children.

Two forms of the eruption are spoken of, (1) *xanthoma planum*, and (2) *xanthoma tuberosum;* in the former, the new deposit is evenly disposed, and in the latter, gathered more into small nodules or points; the nodules may exist in considerable numbers over the body (*xanthoma multiplex*), being especially developed on the elbows and about the knees, while on all the lines of flexure of the hands the yellowish deposit may appear in streaks quite on a level with the skin.

Etiology.—Liver disorder is thought to be a cause, as jaundice has been observed to precede the erup-

tion in a certain number of cases; the connection and true causation are still doubtful.

Diagnosis.—The lesion can hardly be mistaken; there is no other which resembles it.

Treatment.—Excision, where practicable, offers about the best means of cure; but the lesions may be made to disappear by repeated touching with nitric acid. Where the disease is recent and progressing with evident liver disorder, as in the case of *xanthoma multiplex*, the latter should receive careful and thorough attention.

XANTHOMA DIABETICORUM, or glycosuric xanthoma, is a very rare generalized eruption of the same nature, with many small lesions, apparently due to the glycosuric condition; thus far it has been almost always observed in males.

C. NEW GROWTHS OF FATTY TISSUE

Lipoma. Fatty tumors belong rather to the subcutaneous tissue than to the skin proper, but they are introduced here because of their frequent importance diagnostically. They are characterized by their indefinite outlines, their soft and flabby feel, and their mobility with the skin, which is normal over them; they may be of any size, and are seldom abruptly elevated.

Diagnosis.—Lipomata may be mistaken for *carcinoma*, *lymphangioma*, *sarcoma*, and *syphilitic gummata*.

Treatment.—This is, of course, wholly surgical.

D. NEW GROWTHS OF MUSCULAR TISSUE

Myoma. Synonym: *Dermatomyoma.* This rare form of cutaneous tumor has probably its starting-point from the arrectores pilorum. Two forms are described, one, the more common, where there is a single mass, or several together, which may be of any size, and may be sessile or pedunculated, and may contain much fibrous tissue (*fibromyoma*). In the other form, which is very rare, the tumors are small and develop slowly, either singly or in groups, on any part of the body; they are slightly raised, of the color of the skin or reddened, elastic to the touch, and generally painful, sometimes giving rise to paroxysmal suffering.

Diagnosis.—This may be most difficult, and can sometimes be determined only by microscopic examination. The lesions may be mistaken for *fibroma*, *neuroma*, and *lymphangioma*.

Treatment.—This is purely surgical.

E. NEW GROWTHS OF BLOOD-VESSELS

Three diseases are placed in this group: (1) *nævus vasculosus*, (2) *angioma cavernosum*, and (3) *telangiectasis*.

1. **Nævus vasculosus.** Synonyms: *Nævus sanguineus; Claret stain; Port-wine mark; Mother's mark.* This consists of a new growth of blood-vessels, congenital or appearing shortly after birth, presenting various appearances. It may be com-

posed only of smaller capillaries and be level with the surface, or it may extend more deeply in the skin, and be raised above the surface. This constitutes what is ordinarily known as *port-wine mark* or *claret stain*, called also *mother's mark* and *birth-mark*, and may vary from a trifling disfigurement to a hideous deformity, covering much of the face or even of the body. The color varies from an arterial red to a bluish purple. In larger nævi pulsation is often very distinct.

Treatment.—Superficial nævi may be destroyed with caustics or with the actual or galvanic cautery. Multiple scarification, electrolysis, and multiple puncture, with the introduction of carbolic or chromic acid, have also been used with success. In all of these procedures considerable scarring must be expected.

2. **Angioma cavernosum.** In this the blood-vessel disease is more deeply seated, the vessels are larger and communicate freely with each other, often forming cavities of some size. The surface may be of almost the normal color, or a superficial nævus may exist over it, and so it may have various shades. On palpation the tumor sinks in on pressure, often seeming to leave quite a cavity, which immediately refills; sometimes pulsation may be felt. There is always a considerable amount of fibrous tissue among the new growth of blood-vessels, and the entire mass

may be surrounded by it, in a more or less perfect capsule, which is of great importance surgically.

Treatment.—For the larger and more well-defined angiomata total excision gives the best results. For smaller and more superficial masses electrolysis will often answer.

3. **Telangiectasis.** In distinction from congenital vascular new growths or nævi, this term is applied to those which appear later, generally in early adult life. Various forms and degrees are observed; the slightest is that appearing, generally about the face, as a minute red dot from which several small vascular lines radiate, the *nævus araneus*, or *spider nævus*. After lesions which produce cicatrices there is frequently a telangiectasic condition of the capillaries, which are tortuous and dilated. This state is often seen upon the nose and cheeks in those exposed much to the cold or heat, and in connection with acne rosacea; to this latter the term *rosacea* alone has been applied. Varicose veins also belong in this class.

Treatment.—Nævus araneus may be easily removed by boring into the central vascular point with a caustic; a convenient method is to use a sharpened match dipped in mono-chloro-acetic acid. The enlarged veins on the face may be obliterated by slitting them with a knife, and cauterizing their course with a stick of nitrate of silver, or carbolic acid; electrolysis is also valuable.

F. NEW GROWTHS OF LYMPHATICS

Lymphangioma circumscriptum. Synonyms: *Lymphangiectodes; Lymphangioma capillare varicosum.* This very rare affection is characterized by the formation of deep-seated, non-inflammatory, lymphatic vesicles, of peculiar appearance, occurring in patches. The lesions are slightly raised and flattened; they may be of a pale-straw color, or pinkish, and occasionally of a purplish hue, from dilated blood-vessels or extravasation of blood in their cavities. On palpation they are soft and the finger sinks in, but the cavity very soon refills; on puncture a clear alkaline fluid exudes, containing lymph-corpuscles.

Treatment.—This has been very unsatisfactory. Electrolysis has thus far yielded the best results.

LYMPHANGIOMA TUBEROSUM MULTIPLEX.—This still more rare disease consists of the production of many small, rounded, or oval, brownish-red nodules, slightly painful on pressure, and firmly imbedded in the corium. These are found microscopically to present circular or oval spaces, identical in structure with dilated lymphatics.

G. NEW GROWTHS OF GLANDULAR TISSUE

Adenoma sebaceum and **hidro-adenoma.** New growths of the sebaceous and sudoriparous glands

have been already considered in Chapter IX. in connection with glandular diseases.

H. NEW GROWTHS OF NERVES

Neuroma cutis. This term has been applied to a very rare affection characterized by small, firm, flattened tubercles, packed together or irregularly disseminated, which may be of the color of the skin, or a little reddened, and presenting a roughened surface. Beginning with itching, the later development is attended with pain, which is paroxysmal and very severe, radiating from the part; movement or pressure, also exposure to cold air and change of season, excite the attacks of pain. In other instances a single "*subcutaneous painful tubercle*" appears.

Treatment.—Excision of the nerves leading to the part has given much relief; all other measures are only palliative.

II. Malignant New Growths

Six diseases are grouped here, each presenting several clinical phases, all marked by their malignant character, tending in the end to destroy life; these are: (1) *epithelioma*, (2) *carcinoma*, (3) *sarcoma*, (4) *mycosis fungoides*, (5) *yaws*, (6) *lepra*.

1. **Epithelioma.** Synonyms: *Epithelial cancer; Cancroïde; Rodent ulcer.* The forms and appear-

ances of epithelioma in different degrees and stages vary so greatly that those unacquainted with the disease may fail to appreciate the lesion; cases also differ very greatly in their malignity. The beginning is always very small, and commonly its real nature is not recognized until it has lasted some time; the disease may start from a mole or wart, or from a hardened sebaceous concretion, or begins unrecognized as a scaly patch, which exhibits a raw and frequently slightly bleeding surface, whenever the crust is picked or rubbed off. Soon greater infiltration is manifested and more ulceration; in the progress of the disease small pearly tubercles, hard and cartilaginous, are often formed, which break down on their summits and form ulcers.

Writers now usually recognize three forms or varieties of the disease: (1) superficial or discoid, (2) papillary, and (3) deep-seated; but all are in reality the same process, varying mainly in severity and amenability to treatment. The superficial form may remain quiescent, slowly spreading, and give very little trouble, and may yield readily to proper treatment. When irritated by injudicious treatment the edge of an epithelioma generally becomes hard and elevated, the ulcer extends and deepens, and great destruction of tissues, even of the bones, may result (*rodent ulcer, Jacob's ulcer, noli me tangere*). In occasional instances large areas of skin may be occupied by the disease. Upon the lip the disease,

beginning in a very insignificant raw spot, may increase to such an extent as to present a fungous mass of granulations.

The face is the most common seat of epithelioma, but no portion of the body is exempt; the lower lip is very frequently attacked, also the region of the eyes and the nose. The male and female genitals are also common locations, and the tongue and mucous membrane of the mouth are not rarely affected; the process may attack old ulcers of the leg.

PAGET'S DISEASE OF THE NIPPLE, or *malignant papillary dermatitis*, is a curious and rather rare manifestation of epithelial mis-growth. It begins with simply an excoriated, red surface on and about the nipple, which refuses to heal, giving off a viscid secretion; the process is an exceedingly chronic one and may last for years without giving rise to more than a certain amount of soreness and itching; but in the end deep ulceration may occur and cancer of the breast follow. The same condition may also attack the scrotum and penis.

Epithelioma formed 1.78 per cent. of the 20,000 cases analyzed: 225 cases among 10,000 private patients, and 131 among 10,000 in public practice; there were 212 males and 144 females.

Pathology.—The disease is to be looked upon as a perverted growth of epithelial elements of the skin; the "*epithelial nests*, *globes*, or *pearls*" are

compacted masses of cells, arranged like the layers of an onion.

Diagnosis.—In its beginning, when there is only a slight scaly patch, with a little viscid secretion or slight bleeding beneath, epithelioma may be confounded with *eczema* and *horny seborrhœa.* Later, it may be mistaken for *lupus*, the lesions of *syphilis*, and *venereal warts;* many cases, formerly called lupus, under the title *noli me tangere*, are now recognized to be epithelioma. Upon the lip and mucous membranes the sore may resemble a *chancre*, or a *mucous patch.*

Prognosis.—This must vary greatly with the case; if taken early and treated radically, the disease may generally be cured; old, extensive, and neglected or badly treated cases are always very unfavorable. In some instances it runs a rapid and very destructive course; the glands are seldom affected as in cancer, even in severe cases, except in epithelioma of the lip.

Treatment.—This must be as early and radical as possible, and consists in a complete and thorough removal of the diseased tissue by surgical operation, or deep and perfect destruction by means of caustics; thorough scraping with the curette, followed by the free application of powdered pyrogallic acid, will often suffice for superficial lesions, but may fail to reach deeply enough to remove all the disease. Various caustics may be used, chloride of zinc,

caustic potassa, Vienna paste, or some other which destroys deeply (Formulæ 11, 12, 13); the one I prefer is the arsenical paste (Formula 10) as used by Marsden in the London Cancer Hospital. This consists of equal parts of powdered arsenious acid and gum acacia, which are mixed into a thick paste at the time of using, with a few drops of water. It is to be laid upon the part, freed from crusts, and allowed to dry on, covered with a little absorbent cotton; after from six to twelve hours the part is poulticed with flaxseed meal, with renewals every two hours until the slough separates and the wound is healed, the bit of cotton, saturated with the caustic, being left adherent as long as possible. A second application may be required, although seldom, except in large or deep-seated lesions; not more than one square inch of surface can be safely attacked at once with the paste.

2. **Carcinoma cutis.** Cancer of the skin commonly arises as a secondary deposit in connection with cancer of other organs, chiefly of the breast. It is characterized by the appearance in the skin of small, very hard masses, of a pinkish or brownish-red color, with some hardening of the tissues between; the little kernels are painful when pressed on.

Another form is presented as a diffuse induration of the integument, more commonly first seen on the chest, exhibiting, when fully developed, a hardened

and somewhat contracted and shiny skin, with or without separate nodules, the so-called *cancer en cuirasse*. This may extend and so press upon the blood- and lymph-vessels as to cause œdema of the arms and much pain, and ends fatally.

CARCINOMA MELANODES, or melanotic cancer, is a malignant form of disease often starting from a pigmentary mole, which forms fungating, bleeding masses; other organs, often almost the entire system, may be later invaded by the disease.

Diagnosis.—The diffuse forms of cancer are liable to be mistaken for *scleroderma*.

Treatment.—This is at the best but palliative.

3. **Sarcoma cutis.** Sarcoma of the skin is a very rare affection, but 20 cases occurring in the 20,000 analyzed, 10 males and 10 females. It consists of few, or many, well-defined, elastic tubercles or tumors, of various sizes, forming deep, rounded masses, with a tendency to reach the surface and slowly ulcerate, and to gradually infect the system and destroy life. The skin over them is, at first, of the normal color, and somewhat movable, but as they approach the surface it becomes adherent and reddened; or, if the sarcoma is of a pigmented variety (*melano-sarcoma*), it acquires a bluish-black hue.

Diagnosis. — Sarcomatous tumors may be confounded with *tubercular* and *gummy syphilitic deposits*, *cancer*, *lupus*, *leprosy*, and *fatty tumors*.

Prognosis.—This is most unfavorable; death commonly results within two or three years.

Treatment.—Little can be done to check the development of the tumors; although the very free use of arsenic hypodermically has been successful in some cases; surgical interference may be of service in particular situations.

4. **Mycosis fungoides.** Synonyms: *Granuloma fungoides; Inflammatory fungoid neoplasm; Lymphadénie cutanée.* This curious and rare affection exhibits very different features at its various stages, but before fatal termination all cases display the characteristic fungating nodules or elevated placques from which it is named. In the early, or "*pre-mycotic*" stage, erythematous, itchy patches appear, often resembling urticaria, which, however, persist, and become scaly and even eczematous. Upon these, or elsewhere, more solid flat lesions appear, which are at first smooth and shiny, and pulpy to the touch, of a peculiar purplish-pink; these gradually increase in size and height and break down superficially, becoming moist and crusted. The tumors may grow rapidly or sometimes remain quiescent a long time, and sometimes they disappear spontaneously. But the disease progresses with the formation of new tumors which, while the head and face are commonly greatly affected, appear indifferently over all portions of the body, until the patient is

worn out or dies of intercurrent disease. It is probably an infectious disease due to a micro-organism.

Diagnosis.—The early phases at times resemble *erythematous eczema, urticaria, erythema exudativum,* and even *psoriasis:* the later lesions sometimes suggest *leprosy, syphilis, lupus vulgaris,* and *sarcoma.*

Prognosis.—This is always most unfavorable: the disease has been known to be fatal in two or three months and also to persist ten or more years.

Treatment.—So little is known in regard to its nature that no effective line of treatment has been found; arsenic and quinine internally, and resorcin and pyrogallic acid externally, have been recommended.

5. **Frambœsia.** Synonyms: *Yaws; Pian.* This disease belongs so exclusively to tropical countries that it is hardly necessary to dwell long upon it. It is undoubtedly caused by the inoculation of a specific virus, and many have believed that it is a modified form of syphilis, which it resembles somewhat in many features, and in treatment. After an incubation period of from three to ten weeks, there is a primary sore which becomes pustular and dries up and crusts, with an ulcer beneath. The secondary stage is then accompanied with some fever and a papular eruption, which becomes pustular, and beneath the crusts which form, the lesions are apt to become fungating, whence the name (raspberry-like).

Later, tertiary phenomena may appear which much resemble those of syphilis, ulcerative lesions of the skin and mucous membranes, bone disease, etc.

Treatment.—This is conducted largely on general principles in the early stages, and late in the disease mercury and iodides, with appropriate tonics.

6. **Lepra.** Synonyms: *Leprosy; Elephantiasis Græcorum; Leontiasis.* Leprosy is a constitutional, malignant disease, characterized by the occurrence of cellular deposits in the skin and other tissues, producing changes which tend to destruction and death. Leprosy is endemic in certain countries, especially in Asia and the islands of the sea, also in some sections of Europe, as Norway, likewise in portions of South America; it is rarely seen in this country, and generally in persons who have frequented affected countries, although well marked cases have occurred in the United States without any connection with other regions. Twenty-two cases (14 males, 8 females) are recorded among the 20,000 analyzed. The disease is frequently known as *elephantiasis Græcorum*, but it should be clearly distinguished from the *elephantiasis Arabum*, previously described, with which it has no connection whatever.

Three forms or varieties of leprosy are spoken of, (1) *lepra maculosa*, (2) *lepra tuberculosa*, and (3) *lepra anæsthetica*, but the disease is identical in every

instance, and all forms may appear in the same individual; the tubercular form often commences with macules, and all cases exhibit more or less anæsthesia.

LEPRA MACULOSA makes its first appearance in the form of macules, or with occasional bullæ; the macules are at first red, slightly elevated, and with illy-defined margins; later they become brownish-red, and as they enlarge tend to clear in the centre; still later they may present an atrophied condition, and the eruption then exhibits pale patches, an inch or more in diameter, round or oval, with a slightly elevated, dark, brownish-red, or ham-colored margin of considerable breadth, shading insensibly into the normal skin. During their entire course the macules have an infiltrated appearance; there is apt to be hyperæsthesia first, and anæsthesia later; the first sensation may be as though a hair lay on the surface, tickling it. Still later, marked anæsthetic symptoms and tuberculous deposits appear, as next described.

LEPRA TUBERCULOSA.—Tubercular leprosy is the form most commonly encountered in this country; here irregular masses form within the tissues, which may be from the size of a pea to that of a large nut or larger, of a yellow, and later of a brown color. These are apt to develop first in the lobes of the ears and on the nose, next on the forehead and lips; the term *leontiasis* has been applied to the appearance thus presented, from a supposed likeness to a lion's

face. In later stages the tissues of other parts become the seat of similar deposits, which may also affect the mucous membranes, the eye, and other organs.

LEPRA ANÆSTHETICA.—This form is seen most commonly in countries where the disease is endemic; the nervous tissue appears to be first affected, and tickling and burning sensations are felt, with pain; thickening of the nerves also occurs, which can be especially felt along the ulnar nerve. Macular patches and perhaps bullæ appear, and shortly the tissues of the fingers and toes become thickened and the parts feel numb; ulceration now readily occurs and the phalanges separate and are lost one by one, without pain, the stumps healing perfectly (*lepra mutilans*). The process may go on to the removal of all the fingers and toes, and even of the feet and hands; or the parts may become shrunken and distorted ("*leper claw*").

Pathology.—The lesions consist of new deposits of cellular elements somewhat resembling those in lupus and syphilis; the nerves are found to be swollen and darkened, mainly by new deposit in their sheaths, the pressure of which accounts for the nerve symptoms. In almost all portions affected with the disease the *lepra bacilli* may be found, which must be looked upon as the cause of the malady, but the mode of their entrance to the system has not yet been determined.

Diagnosis.—Leprosy may most frequently be mistaken for *syphilis*, also for *lupus;* the occasional bullæ might suggest *pemphigus*, and the whitened patches with dark borders resemble *leucoderma* or *morphœa;* a distorted hand might resemble *scleroderma.* When fully developed it can hardly be mistaken.

Prognosis.—This is always bad; treatment has effected but little in staying the progress of the disease in lands where it is endemic; patients who come to this country often do very well under the free use of chaulmoogra oil. It may last three, five, ten, or even more years before the patient succumbs.

Treatment.—In addition to the best dietetic and hygienic management, and the treatment of symptoms as they arise, powerful tonics, especially quinine and strychnine, have some control over the disease. Special drugs have also been found of service by different observers, but have as often failed; these are chaulmoogra oil internally and externally, gurgun balsam, the oil of the cashew nut, and hoàng nàn.

CHAPTER XX

DIET AND HYGIENE IN DISEASES OF THE SKIN

THE subject of the effect of diet upon the skin in health and disease is one which has been greatly neglected in the study of Dermatology; and yet the matter is of the utmost practical importance, and should receive the careful thought and observation of every physician. Hygiene is also of very great consequence, both as regards the individual, and often for the safety of others. First, of diet.

DIET

All are more or less familiar with some of the effects produced on the skin by articles taken into the stomach. As examples may be mentioned the acute erythema, or urticaria, occasionally resulting from the ingestion of certain varieties of fish, particularly shell-fish, also, at times, from mushrooms, bananas, strawberries, raspberries, etc.; in some individuals the eruption will appear whenever these are eaten, in others, only when the articles are stale, or, again, when they themselves are in a peculiarly susceptible condition. Gross indiscretions in eating,

as of mince pies, fruit-cake, rich cheese, nuts, etc., are constantly observed to be followed by fresh lesions of acne; and many drugs taken internally, such as iodine and bromine compounds, copaiba, quinine, and others, frequently produce cutaneous lesions.

In like manner, chronic errors in diet can induce alterations in the skin nutrition, although the extent to which this happens, and the manner in which it occurs are by no means clearly defined as yet. As a most striking illustration may be mentioned the effect of a deficiency in fresh vegetables in producing scorbutus; alcohol and tobacco also undoubtedly exercise a strong influence upon the skin.

The commonly accepted signification of dieting is that of a famishing process, which is to be continued for a longer or shorter period of time, with a view, as it were, of starving out a disease. This is an entirely erroneous view to take of the subject. In the present connection diet has a much broader meaning, and signifies *such a regulation of the quantity and quality of food and drink taken, its mode of preparation, and time and method of its consumption, as shall conduce to the restoration and maintenance of health.* Diet is undoubtedly of varying influence in different affections, and in different individuals, but to a certain degree it is of importance in relation to every case. Defective assimilation and disintegration are important factors in disease, and these

defects are often caused by erroneous diet, and are to be remedied, not by medicine alone, but by the regulation of every element entering into nutrition.

Undoubtedly a healthy appetite and sound judgment are good guides in the matter of diet; but unfortunately every one does not possess one or both of these, and the temptations of modern society often act very prejudicially on the health. Not every one discriminates between taste and appetite; the *taste* is gratified long after the *appetite* is satisfied, and sweets and indigestible articles are often partaken of in excess.

Eczema has often been called the "keystone of dermatology," and a brief consideration of dietary matters as related to this disease will throw light on those of other inflammatory affections of the skin, as it will be impossible, in the present compass, to consider the diet of every disease separately; we will first notice errors in diet constantly observed in those suffering from the disease in infant life.

In infants at the breast too frequent feeding is a common cause of the aggravation of eczema, if not of its production; the breast is given every time the child cries, or is restless with itching, and this excites or aggravates the digestive disorder. The time of feeding should be regulated, and the breast not given oftener than every two hours, at the least.

But, again, while the times of feeding may be correct, the nourishment may be imperfect from the

quality of the milk furnished, which again depends upon the mother's diet. Those nursing eczematous children are often found to be taking ale, beer, porter, wine, or tea freely, with the idea of increasing the breast milk; these should be prohibited and milk or gruel substituted.

Dyspepsia, constipation, or debility in the mother are elements to be considered and rectified in connection with the treatment of nursing children with eczema; and alkalies, tonics, and cod-liver oil given to the mother are often of the greatest service to the child.

Many infants with eczema are fed erroneously, either conjointly with nursing or in place of it. Milk is the best food, and yet the majority of infants take starchy and saccharine substances, often in great excess; frequently animal matter, in the form of eggs, beef extract, etc., is given far too freely, while occasionally it will be found that even very young infants are fed from the table with the food of adults, tea, coffee, cheese, pies, etc. Space forbids more than brief allusion to this vast and very important subject, but sufficient emphasis can hardly be laid on the advantage of attending to the matter of diet most stringently, as a necessary item in successful treatment. The diet must also be carefully watched in older children. Indeed, eczema at any period of life requires care in this regard.

Eczema patients are generally found to dislike

fatty matter, whereas its use should be encouraged, while carbohydrates, sugar and starch, are to be diminished in the dietary. The fatty matter taken, however, should not be in combination with other substances, as in gravies, pastry, and fried articles, but in the form of fat of beef and mutton, also butter, cream, and cod-liver or other oils. Where the latter are not well tolerated by the stomach, they may be freely employed externally.

In regard to the diet of adults with eczema: during acute attacks, it should be light and unstimulating, with but little meat; while in chronic cases it should be the most nutritious possible, and yet simple, all elements calculated to produce indigestion or malassimilation being sedulously avoided.

In reference to the many substances which may enter the dietary it is difficult to make exact statements; the matter must be guided on general principles, but some of the more common articles may be commented on.

Alcohol acts prejudicially in very many skin diseases, and should, as a rule, be avoided, unless in the greatest moderation, and with the meals. Fermented liquors are even more injurious, and frequently it is impossible to cure the eruption while they are indulged in; the relative harmfulness of some of the more common ones is about as follows: ale, porter, champagne, lager beer, cider, port wine, madeira wine, sherry, claret, white wine. Tobacco

is certainly hurtful in acne, also in eczema of the face and anus, and is probably noxious in many other affections.

Tea and coffee are seldom injurious if taken in great moderation; but tea is often used excessively, and certainly may do much harm in eczema, if not in other eruptions.

Milk is often taken as a beverage with meals; as a rule, this is not well for adults, but if taken entirely alone, warm, and on a perfectly empty stomach, an hour before meals, it forms a most valuable means of improving nutrition, and rarely disagrees.

Water may be quite as harmful as other drinks, if taken in excess and too cold; many cases of acne are greatly aggravated by the inordinate use of iced water with the meals, or at other times. Much benefit can constantly be had by giving a cup of hot water half an hour before eating; the thirst is thus quenched, and water with the meals can easily be avoided.

Soup will frequently be found to cause the face of acne patients to flush, and to excite heat and itching in eczema; rich, greasy soup is more apt to have this effect, but with some patients all varieties will produce the same results.

Fish is commonly supposed to be injurious and is often interdicted in skin affections, because urticaria is sometimes caused by shell-fish. This is quite erroneous, and fish may often be used with great

advantage in place of meat in many skin diseases, especially those exhibiting nervous phenomena.

On the other hand, excess of meat, especially beef and mutton, is often very harmful; and as a means of overcoming the *uricacidæmia*, which often causes and keeps up some eruptions, it is frequently very desirable to limit its use. In psoriasis very remarkable results may often be obtained by the total avoidance of these and other "red meats," even for long periods of time.

Salted meats and salted fish are rightly thought to act prejudicially in skin diseases; they should be avoided, as also pickles, olives, rich salads, stimulating sauces, pepper, etc. Hot breads are also injurious, likewise gravies, the skin and filling of poultry, and richly made dishes.

Acids are generally not harmful, although when they come from unripe fruit they prove injurious; vinegar and lemons are rather beneficial in most skin affections.

The use of certain articles of food requires to be encouraged in certain diseases; of these mention has been made of fresh vegetable products in scorbutus, fatty matter in eczema and strumous eruptions, and also the whole wheat products in many affections, especially those exhibiting nutritive and nervous elements. Oatmeal, on the other hand, often appears to be "heating," and patients with skin diseases often do better without it. Mention

was also made of the avoidance of excess of sweets and starches in eczema; these are to be guarded against sedulously by acne patients, and also by all those exhibiting gouty tendencies. Sweet potatoes, cabbage, bananas, and apples often do harm to those with inflammatory skin diseases.

Space forbids the developing of other practical matters in reference to diet, such as the *quantity* of food taken, the *preparation* of food, and the *time* and *mode* of consumption, but they must be looked after or errors will occur. Very many eat excessively, others very rapidly without sufficient mastication, others very irregularly.

HYGIENE

This relates to the individual and to others; first, as to *personal* hygiene. Exercise, rest, sleep, bathing, occupation, and recreation are all items which are often of importance in dealing with obstinate skin affections. Sedentary habits, if not a direct cause of, are often an obstacle to the cure of, many eruptions; good brisk walking, several miles daily, suffices, and is within the reach of nearly every one; while cycling, golf, tennis, horseback riding, rowing, boxing, and fencing are all excellent adjuvants.

Proper care of the skin is also necessary, but overstimulation by the frequent use of the Turkish bath frequently proves harmful. Occupation may be injurious in many ways; by the sedentary habits

involved, by bad air breathed, by poisonous or irritating agents employed, by irregular hours entailed, and by circulatory derangements induced, as when long standing produces varicose eczema, or stooping develops an acne rosacea. All these and other elements are to be considered in connection with particular cases.

Hygiene as related to *others* pertains to the contagious diseases. The hygiene of syphilis is all-important; the patient should be continually warned against the danger of communicating the disease to others, as in connection, and by social intercourse. Scabies, ringworm, and favus cases should always be guarded against transferring the disease to others; and in schools and public institutions the most stringent precautions are often necessary to check the spread of the disease. The protective measures relating to acute infectious diseases are familiar to all.

CHAPTER XXI

THERAPEUTICS OF DISEASES OF THE SKIN

THE only basis of rational and successful therapeutics is a thorough knowledge of disease and of the action of remedies, separate and combined; accuracy of diagnosis is indispensable for the successful management of skin affections. The prescriptions presented in this chapter are, therefore, given with a view of suggesting lines of thought in regard to the employment of remedies, rather than as fixed formulæ to be employed in every instance; individual cases vary so greatly that no absolutely definite prescriptions can be given which are suited for all conditions of skin and stages of disease. The combinations here recorded must therefore be used with knowledge and discretion, and not simply because the disease for which they are recommended is present. In some instances varying strengths are indicated; in the main they are all intended for adults.

AQUÆ MINERALES

The natural mineral waters are commonly thought to be of very great service in connection with dis-

eases of the skin, but those who have had most experience in practical dermatology are the least sanguine in their endorsement. While, undoubtedly, a sufficient sojourn at exactly the proper Spa, with a perfectly regulated life and a correct use of the water, externally and internally, will often prove of much service in certain cases, the real value of mineral springs has been very much overestimated, they being too often vaunted for commercial purposes. Relatively little benefit comes from their indiscriminate and imperfect use, while in many instances they operate very disadvantageously. The limits of this work do not permit of the full consideration of this subject.

BALNEA

Baths are employed for the purpose of: 1. Allaying local irritation and inflammation; 2. Softening the skin and removing diseased products; 3. Stimulating the skin and promoting absorption; 4. As a means of acting on the general economy in quickening the processes of assimilation. Vapor, Turkish, sulphur, and mercurial baths should not be used in inflammatory states; in the main more harm than good is done by them; in sluggish conditions they may be of service in quickening the circulation. It is needless to say that it is useless to attempt to sweat out " impurities in the blood " by this means.

Medicated liquid baths should vary in temperature

according to the patient, the season, and the effect desired: a *tepid bath* ranges from 85° to 92° Fahr.; a *warm bath*, from 92° to 98° Fahr.; and a *hot bath* from 98° to 110° Fahr.; to be of much service the patient should remain in the water from fifteen to twenty-five minutes or longer, children a less time, hot water being added, if necessary, to prevent chilling. The following formulæ are calculated for a bath of thirty gallons:

1. *Balneum potassii et sodii.*

℞	Potassii carbonatis, ʒ iv.....	124	41	
	Sodii carbonatis, ʒ iij.....	93	30	
	Pulveris boracis, ʒ ij	62	20	

M. Use in a thirty-(30) gallon bath, with a pound or two of starch. Gelatin, one pound, may be substituted for the starch, or bran, a pound or two being soaked in a muslin bag.

USE: Soothing and cleansing, in sub-acute eczema, psoriasis, and urticaria.

2. *Balneum potassii et glycerini.*

℞	Pottassii acetatis, ʒ vj – ʒ xij	186	61—373	22
	Glycerini, ʒ viij.....	320		

M. For a 30-gallon bath.

USE: Soothing and antipruritic.

3. *Balneum ammoniæ et glycerini.*

℞	Spiritus ammoniæ aromatici,		
	Glycerini, āā ʒ viij.....	320	

M. For a 30-gallon bath.

USE: Slightly stimulating and antipruritic.

4. *Balneum acidi carbolici.*

℞	Acidi carbolici, ʒ ss – ʒ ij	15	— 30
	Gelatinæ, lb.j.....	373	
	Aquæ, O ij.....	960	

M. For a 30-gallon bath.

USE: Stimulating and antipruritic.

5. *Balneum acidi nitrici.*

℞			
	Acidi nitrici,		
	Acidi muriatici, āā ℥ j.....	30	

M. For a 30-gallon bath.
USE: Stimulating and antipruritic.

6. *Balneum sulphuris compositum.*

℞			
	Sulphuris precipitati, ℥ ij.....	62	20
	Sodii hyposulphitis, ℥ j.....	31	10
	Acidi sulphurici diluti, ℥ ss.....	15	
	Aquæ, O j.....	480	

M. For a 30-gallon bath. (London Skin Hospital.)
USE: Stimulating and antiparasitic.

7. *Balneum mercuriale.*

℞			
	Hydrargyri chloridi corrosivi, ʒ iij.....	11	66
	Acidi hydrochlorici, ʒ j.....	3	75
	Aquæ, O j.....	480	

M. For a 30-gallon bath (= 1 – 10,000). (London Skin Hospital.)
USE: Stimulating and antisyphilitic.

8. *Balneum iodinii.*

℞					
	Iodinii, ʒ j–ʒ ij	3	88—	7	77
	Potassii iodidi, ℥ j–℥ ij.....	31	10—	62	20
	Aquæ, O j.....	480			

M. For a 30-gallon bath.
USE: Stimulating and absorbent.

9. *Balneum brominii.*

℞			
	Brominii, ♏xx.....	1	12
	Potassii bromidi, ℥ ij.....	62	20
	Aquæ, O j.....	480	

M. For a 30-gallon bath.
USE: Stimulating and absorbent.

CAUSTICA

Various caustics are of service in certain diseases of the skin, but in the main they are comparatively seldom required: in employing a caustic to destroy

a new growth, care should be taken that it is used sufficiently strong to accomplish the desired result, otherwise further development is stimulated. Nitrate of silver, the mineral acids, and mono-chloro-acetic acid are all of lighter destructive power; the following may destroy deeply:

10. *Causticum acidi arseniosi.* (Marsden's paste.)

℞	Pulveris acidi arseniosi,		
	Pulveris gummi acaciæ, āā ʒ j.....	3	88

M. Mix a little with water at the time of using, and apply as a thick paste to a surface of not over one square inch at once.
USE: Of especial value in epithelioma.

11. *Causticum acidi arseniosi comp.* (Cosme's paste.)

℞	Pulveris acidi arseniosi, gr. xx.....	1	29
	Pulveris hydrargyri sulphureti rubri, ʒ j.....	9	88
	Unguenti aquæ rosæ, ℥ j.....	31	10

M.
USE: Moderately destructive in lupus.

12. *Causticum zinci et antimonii chloridi.* (Canquoin's paste.)

℞	Zinci chloridi,		
	Antimonii chloridi, āā ʒ j.....	3	88
	Pulveris amyli, ʒ iss	5	82
	Aquæ, q.s.....		

M. Make into a paste at the time of using.
USE: A deep acting caustic, for malignant growths.

13. *Causticum zinci chloridi comp.* (Bougard's paste.)

℞	Hydragyri bi-chloridi, gr. j.....		06
	Pulveris acidi arseniosi, gr. ii.....		12
	Hydrargyri sulphidi rubri,		
	Ammonii chloridi, āā gr. viiss.....		5
	Farinæ tritici,		
	Pulveris amyli, āā ʒ iss.....	6	
	Zinci chloridi, ʒ vi.....	23	30
	Aquæ (52° Fahr.), ʒ iiss.....	9	7

M. Grind the first six ingredients separately in a china mortar, and mix thoroughly. Dissolve with friction, so that no lumps form.
USE: A deep acting and efficient caustic for malignant growths.

14. *Causticum arseniosi et hydrargyri.*

℞	Hydrargyri chloridi mitis, ʒ iv.....	15	55
	Hydrargyri bi-sulphureti, gr. viij.....		51
	Acidi arseniosi, gr. xij.....		77

M.
USE: A moderate arsenical caustic of value in lupus.

15. *Causticum acidi nitratis hydrargyri*

℞	Hydrargyri, ℥ j.....	31	10
	Acidi nitrici (Sp. gr. 1. 4), ℥ j.....	30	

M.
USE: A medium strong caustic, especially useful for syphilitic lesions.

16. *Causticum hydrargyri iodidi.*

℞	Hydrargyri iodidi rubri,		
	Unguenti aquæ rosæ, āā ʒ ij.....	7	77

M. et ft. unguent.
USE: A superficial destructive, of value in lupus.

17. *Causticum potassæ causticæ.*

℞	Potassæ causticæ, gr. v, – ʒ ij		32—	7 77
	Aquæ, ʒ ij – ℥ j	7	50—	30

M. et ft. solutio.
USE: In weakest solutions a mild stimulant in acne, eczema, and psoriasis; in strongest solutions, a medium caustic, in diffuse lupus.

18. *Causticum sodii ethylatis.*

℞	Sodii ethylatis, ℥ ss.....	15	55
	Alcohol absoluti, ʒ vj.....	23	32

M.
USE: Superficial caustic in vascular and pigmentary nævus.

EMPLASTRA

19. *Emplastrum mercuriale.*

℞	Hydrargyri, ℥ j.....	31	10
	Olei terebinthinæ, ℥ ss.....	13	50
	Emplastri plumbi, ℥ iv.....	124	41

M. Spread on linen and apply closely to the part.
USE: In chancre, syphilitic lesions, lupus erythematosus, and sycosis.

20. *Emplastrum hydrargyri compositum.* (Emplastrum de Vigo.)

℞	Hydrargyri, ʒ ij	7	77
	Olei terebinthinæ, ♏ xx	1	12
	Ceræ flavæ, gr. xx	1	29
	Resinæ, gr. xl	2	59
	Styracis, ʒ j	3	88
	Emplastri plumbi, ℥ j	31	10

M. Spread on linen and apply closely to the part.

USE: In syphilitic eruptions, acne rosacea, and sycosis.

21. *Emplastrum depilatorium.* (Epilating stick.)

℞	Ceræ flavæ, ʒ iij	11	66
	Laccæ in tabulis, ʒ iv	15	55
	Resinæ, ʒ vi	23	32
	Picis burgundicæ, ʒ x	38	87
	Gummi damar, ℥ iss	46	65

M. Make into sticks half an inch to an inch thick and two inches long.

USE: Applied with heat to extract the hairs in favus; also in hirsuties and some cases of tinea tonsurans.

GLYCERITA

22. *Glyceritum plumbi.* (Squire's glycerole of subacetate of lead.)

℞	Plumbi acetatis, gr. cxx	7	77
	Plumbi oxidi, gr. lxxxiv	5	44
	Glycerini, ℥ j	40	

Digest the acetate of lead and the litharge in the glycerine (heated to 300°) in an oil bath, for half an hour, constantly stirring; filter in a chamber heated to 300°.

USE: Diluted from three to seven times with water and glycerine as an astringent and sedative in chronic eczema.

23. *Glyceritum acidi tannici.*

℞	Acidi tannici, ℥ j	31	10
	Glycerini, ℥ iv	160	

M. Rub well together and heat slowly till dissolved.

USE: Diluted with water as an astringent in seborrhœa and chronic eczema, also in herpes preputialis.

24. *Glyceritum picis liquidæ.*

℞	Picis liquidæ, ʒ ij	7	77
	Magnesii carbonatis, ʒ iv	15	55
	Glycerini, ℥ j	40	
	Alcohol, ℥ ss	13	50
	Aquæ, ℥ iiss	75	

M. Apply diluted with water, if irritating.

USE: An antipruritic in chronic eczema, and diluted, in acute conditions.

25. *Glyceritum amyli.*

℞	Pulveris amyli, ʒ j.....	31	10
	Glycerini, ʒ viij.....	320	

M. Rub together till mixed, and heat slowly, with stirring.

Use: Emollient, as a substitute for fatty substances in ointments, and for inunction after baths.

LOTIONES

In preparing lotions containing mineral ingredients, great care should be exercised to avoid coarse and gritty particles, which can readily irritate a delicate skin; the ingredients should be very carefully pulverized and intimately mixed. When a lotion containing a powder is applied, the resulting deposit should form a smooth, even, non-irritating coating; as a rule, parts to which lotions are applied should be kept continually moist with them, but not covered with oiled silk or too heavy dressing, as the application is then converted into a poultice. Glycerine is not well borne by every skin, and its place can be supplied by other demulcents.

26. *Lotio calaminæ et zinci.*

℞	Acidi carbolici, ʒ ss – ʒ j.....	2	— 4
	Pulveris calaminæ preparatæ, ʒ j...	3	88
	Zinci oxidi, ʒ ij.....	7	77
	Glycerini, ʒ iij.....	15	
	Aquæ calcis, ʒ ss.....	15	
	Aquæ rosæ, *ad* ʒ iv.....	120	

M. et ft. lotio.

Use: Cooling and slightly astringent in erythematous conditions.

27. *Lotio calaminæ et cretæ.* (Startin.)

℞	Pulveris calaminæ preparatæ, ʒ j...	3	88		
	Cretæ preparatæ, ʒ j – ʒ ij	3	88—	7	77
	Acidi hydrocyanici diluti, ʒ ss.....	1	90		
	Glycerini, ʒ ij – ʒ iv	10	—	20	
	Liquoris calcis, ℥ iij.....	90			
	Aquæ sambuci, *ad* ℥ viij.....	240			

M. et ft. lotio.

Use: Cooling and antipruritic in sub-acute inflammation.

28. *Lotio magnesii et zinci.*

℞	Magnesii carbonatis,				
	Zinci oxidi, āā ʒ j.....	3	88		
	Aquæ rosæ, ℥ iv.....	120			

M. et ft. lotio.

Use: Cooling and astringent. Ichthyol, three to five per cent., may be added as an antipruritic.

29. *Lotio bismuthi et amygdalæ.*

℞	Bismuthi sub-nitratis, ʒ iss.....	5	83		
	Acidi hydrocyanici diluti, ʒ ss – ʒ j.	1	90—	3	80
	Emulsionis amygdalæ, ℥ iv.....	120			

M. et ft. lotio.

Use: Antipruritic in eczema, with unbroken surface.

30. *Lotio zinci et plumbi.*

℞	Zinci oxidi, ʒ j – ʒ ij	3	88—	7	77
	Liquoris plumbi sub-acetatis dil., ʒvj	22	50		
	Glycerini, ʒ ij – ʒ iv	10	—	20	
	Infusi picis liquidæ, *ad* ℥ iv.....	120			

M. et ft. lotio.

Use: In erythematous conditions.

31. *Lotio boracis et camphoræ.*

℞	Pulveris boracis, ʒ j.....	3	88		
	Tincturi camphoræ, ʒ j – ʒ ij	3	40—	6	80
	Glycerini, ʒ j – ʒ iij.....	5	—	15	
	Aquæ aurantii florum, *ad* ℥ iv.....	120			

M. et ft. lotio.

Use: Soothing and softening in chronic erythematous eczema and pruritus.

32. *Lotio plumbi et opii.*

℞	Liquoris plumbi sub-acetatis diluti,		
	Tincturæ opii, āā ℥ j.....	0	
	Aquæ, *ad* Ō j.....	480	

M. et ft. lotio.

Use: Antiphlogistic in acute inflammatory conditions.

33. *Lotio boracis.*

℞	Sodii biboratis, 3 ij	7	77
	Glycerini, 3 iv	20	
	Aquæ rosæ, ℥ iiiss	105	

M. et ft. lotio.

Use: Demulcent and soothing in roughened conditions of the skin.

34. *Lotio thymol.*

℞	Thymol, 3 ss – 3 j	1	94—	3	88
	Liquoris potassæ, 3 j – 3 ij	3	88	7	77
	Glycerini, 3 ij – 3 iv	10		— 20	
	Aquæ sambuci, *ad* ℥ iv	120			

M. et ft. lotio.

Use: Cooling and cleansing in erythematous and seborrhœic eczema of the scalp.

35. *Lotio antipruritica.*

℞	Foliorum belladonnæ,		
	Foliorum hyoscyami, āā 3 iv	15	55
	Foliorum aconitii, 3 j	3	88
	Acidi acetici, ℥ ij	60	

M. Macerate well in the acid for several days.

Use: To be diluted, a drachm or so to the ounce of water and glycerine; a powerful antipruritic.

36. *Lotio alba.*

℞	Potassii sulphureti,		
	Zinci sulphatis, āā 3 j	3	88
	Aquæ rosæ, ℥ iv	120	

M. Dissolve the potash and zinc, each in one-half the water, and mix.

Use: As an astringent in acne; glycerine (3 ss – 3 ij.) may be added if too drying.

37. *Lotio sulphuris.*

℞	Sulphuris precipitati, 3 ss	1	94
	Glycerini, 3 iv	20	
	Aquæ rosæ, ℥ iiiss	105	

M. et ft. lotio.

Use: As a stimulant in acne.

38. *Lotio sulphuris camphorata.*

℞	Sulphuris precipitati, 3 ij – 3 iv	7	77—	15	55
	Tincturæ camphoræ, 3 ij	7	50		
	Liquoris calcis, ℥ iv	120			

M. et ft. lotio.

Use: As a stimulant in acne.

39. *Lotio sulphuris composita.*

℞	Sulphuris precipitati, ʒ ss – ʒ j.....	1	94—	3	88
	Etheris sulphurici, ʒ iv.....	13	50		
	Spiritus vini rectificati, ℥ iiiss.....	94	50		

M. et ft. lotio.

USE: As an astringent in acne.

40. *Lotio calcii sulphureti.* (Vlemingkx' solution.)

℞	Calcis vivæ, ʒ iv.....	15	55
	Sulphuris sublimati, ʒ vj.....	23	32
	Aquæ destillatæ, ℥ viss.....	195	

M. Boil together with constant stirring until the mixture measures four fluid ounces, then filter.

USE: A powerful stimulant in scabies, psoriasis, and acne; use diluted.

41. *Lotio saponis viridis.* (Spiritus saponis kalinus of Hebra.)

℞	Saponis viridis, ℥ iv.....	124	41
	Spiritus vini rectificati, ℥ ij.....	54	
	Spiritus lavandulæ, ʒ j.....	3	50

M. Filtra et ft. lotio.

USE: On the scalp for a shampoo, with friction, adding a little water until a lather is formed; also on skin for stimulating effect.

42. *Tinctura saponis cum pice.*

(Compound tincture of green soap of Hebra.)

℞	Olei cadini,		
	Saponis viridis,		
	Spiritus vini rectificati, āā ℥ j.....	30	
M.	filtra, et adde,		
	Spiritus lavandulæ, ʒ ij.....	7	50

M. et ft. lotio.

USE: As a stimulant in chronic eczema, lupus erythematosus, etc.

43. *Tinctura picis.*

℞	Picis liquidæ,		
	(*vel* olei rusci, *vel* olei cadini),		
	Alcohol, āā ℥ j.....	31	10

M. solve, et filtra.

USE: A stimulant in chronic eczema and psoriasis; to be used with caution.

44. *Liquor picis alkalinus.*

℞	Picis liquidæ, ℥ ij.....	62	20
	Potassæ causticæ, ℥ j.....	31	10
	Aquæ, ℥ v.....	150	

M. Dissolve the potash in the water and add slowly to the tar, in a mortar, with friction.

USE: Antipruritic and stimulant in chronic eczema; when diluted, from ten to twenty times, acts as a sedative in more acute conditions.

45. *Lotio olei cadini.*

℞	Olei cadini, ʒ iv – ℥ j	13	50—	27
	Olei morrhuæ, (*vel* olei lini, *vel* olei amygd. express.), *ad* ℥ iv	108		

M. et ft. lotio.

Use: Applied freely as a lubricant and antipruritic in general chronic eczema.

46. *Lotio olei cadini et ichthyoli.*

℞	Olei cadini, Ichthyoli, Olei lini, āā ℥ j	31	10

M. et ft. lotio.

Use: Antiparasitic and antipruritic.

47. *Lotio ichthyoli.*

℞	Ichthyoli, ʒ ij – ℥ ij	7	77—	60
	Aquæ (*vel* olei lini), ℥ iv	120		

M. et ft. lotio.

Use; Antipruritic in eczema and dermatitis herpetiformis.

48. *Lotio potassæ permanganatis.*

℞	Potassæ permanganatis, ʒ ss – ʒ i...	1	94—	3 88
	Aquæ, ℥ iij	90		

M. et ft. lotio.

Use: Antipruritic; to be painted over patches of chronic eczema, and allowed to dry on.

49. *Lotio glycerini et potassæ.*

℞	Glycerini, ℥ j	40
	Liquoris potassæ, ℥ ij.....	60

M. et ft. lotio.

Use: A strong antipruritic application, to be diluted if too irritating.

50. *Lotio acidi carbolici composita.*

℞	Acidi carbolici, ʒ ij.....	7	75
	Potassæ causticæ, ʒ j.....	3	88
	Aquæ, ℥ iv.....	120	

M. et ft. lotio.

Use: Antiparasitic and antipruritic; to be diluted if too irritating.

51. *Lotio amygdalæ composita.*

℞	Hydrargyri chlor. corrosivi, gr. v--xx		32—	1	29
	Ammonii chloridi purificati, ʒ ss....	1	94		
	Misturæ amygdalæ amar., ℥ iv.....	120			

M. et ft. lotio.

USE: A stimulant and absorbent in pigmentary conditions; also a parasiticide in vegetable parasitic eruptions.

52. *Lotio flava.*

℞	Hydrargyri chloridi corrosivi, ʒ ss.....	1	94
	Aquæ calcis, O j.....	480	

M. et ft. lotio.

USE: A stimulant in phagædenic ulcers.

53. *Lotio nigra.*

℞	Hydrargyri chloridi mitis, ʒ j.....	3	88
	Liquoris calcis, O j.....	480	

M. et ft. lotio.

USE: Astringent in acute erythematous conditions, and in syphilitic ulceration.

54. *Lotio rubra.*

℞	Zinci sulphatis, gr. iij – v.....		2 —		33
	Spiritus lavandulæ, ʒ j.....	3	9		
	Glycerini, ℥ ss.....	20			
	Aquæ destillatæ, ℥ iss.....	46	60		

M. et ft. lotio.

USE: Astringent and healing; apply on fine muslin to promote cicatrization.

55. *Lotio resorcini.*

℞	Resorcini, ʒ j – ʒ iij	3	88—	11	64
	Spiritus vini rectificati, ʒ ij – ʒ iv ..	7	77	15	55
	Glycerini, ʒ ij – ʒ iv	8		16	
	Aquæ rosæ, *ad* ℥ iv.....	120			

M. et ft. lotio.

USE: Seborrhoic dermatitis (or eczema), especially of the scalp.

56. *Lotio plumbi et ricini.*

℞	Plumbi acetatis, gr. x.....		64
	Olei bergamii, ʒ ss.....	1	94
	Olei ricini, ʒ iv.....	15	55
	Spiritus vini rectificati, *ad* ℥ iv.....	108	

M. et ft. lotio.

USE: Cooling and cleansing lotion for the scalp in erythematous eczema and seborrhœa.

57. *Lotio quiniæ et zinci.*

℞	Quiniæ sulphatis, ℈ j	1	29	
	Zinci sulphatis, gr. x		64	
	Tincturæ cantharidis, ʒ iij	11	66	
	Alcohol absoluti,			
	Glycerini, āā ʒ iv	15	55	
	Spiritus myrciæ, *ad* ℥ vj	162		

M. et ft. lotio.

USE: Mildly stimulating lotion for the scalp.

58. *Lotio cantharidis et capsici.*

℞	Tincturæ cantharidis, ʒ iv – ℥ j	15	55— 31	
	Tincturæ capsici, ʒ iv – ℥ j	15	55— 31	
	Olei ricini, ʒ ij – ʒ iv	7	77— 15	55
	Olei bergamii, ʒ ss	1	94	
	Spiritus vini rectificati,			
	(*vel* aquæ cologniensis), *ad* ℥ iv	124	41	

M. et ft. lotio.

USE: Stimulating lotion for the scalp in alopecia. A drachm of resorcin or salicylic acid may be added after seborrhoic eczema.

MISTURÆ

The following formulæ for mixtures represent average doses for adults. Occasionally the efficient dose is even larger than here given; some of the prescriptions are quite inapplicable for children, and their dosage must be governed by general rules:

59. *Mistura ferri et magnesii.* (Startin's mixture.)

℞	Magnesii sulphatis, ʒ vj – ℥ jss	23	32— 46	65
	Ferri sulphatis, ʒ j	3	88	
	Acidi sulphurici diluti, ʒ ij – ʒ vj	10		30
	Syrupi zinziberis, ℥ j	40		
	Aquæ, *ad* ℥ iv	120		

M. S. Teaspoonful in water, through a tube, after meals.

USE: An aperient and cooling tonic in acute erythematous conditions; quinine and strychnine may often be added to this with advantage.

60. *Mistura potassii acetatis.*

℞	Potassii acetatis, ʒ iv – ℥ jss	15	55— 46	65
	Tincturæ nucis vomicæ, ʒ ij.....	7	77	
	Infusi quassiæ.....			
	(*vel* tincturæ cinchonæ comp.), *ad*			
	℥ iv.....	120		

M. S. Teaspoonful in water, after meals.

USE: An antacid tonic in acute erythematous affections, and in chronic eczema in gouty subjects.

61. *Mistura sodæ salicylatis.*

℞	Potassii acetatis, ʒ ij – ʒ iv.....	7	77— 15	55
	Sodii salicylatis, ʒ ij – ʒ iv.....	7	77— 15	55
	Tincturæ nucis vomicæ, ʒ ij.....	7	50	
	Extracti dulcamaræ fluidi, *ad* ℥ iv..	120		

M. S. Teaspoonful in water half an hour before or after eating.

USE: Antacid alterative in psoriasis.

62. *Mistura rhei et sodii.*

℞	Pulveris rhei, ʒ ss – ʒ ij.....	1	94— 7	77
	Pulveris ipecac., gr. x.....			64
	Sodii bi-carbonatis,			
	(*vel* magnesiæ), ʒ ij – ʒ iv.....	7	77— 15	55
	Aquæ menthæ piperitæ, ℥ iv.....	120		

M. S. Teaspoonful in water, after meals.

USE: Antacid and corrective in eczema and inflammatory affections.

63. *Mistura rumicis composita.*

℞	Potassii acetatis, ℥ ss – ℥ j.....	15	55— 31	10
	Tincturæ nucis vomicæ, ʒ ij.....	7	50	
	Extracti cascaræ sagradæ fluidi, ʒ j –			
	ʒ iv.....	3	75— 15	
	Extracti rumicis radicis fluidi, *ad*			
	℥ iv.....	120		

M. S. Teaspoonful half an hour before meals, largely diluted.

USE: In indurated and rosaceous acne.

64. *Mistura ferri et cinchonæ.*

℞	Ferri et ammonii citratis, ʒ j.....	3	88		
	Liquoris potassii arsenitis, ʒ j – ʒ ij.	3	75—	7	50
	Liquoris potassæ, ʒ ij.....			7	50
	Tincturæ nucis vomicis, ʒ ij.....	7	50		
	Tincturæ cinchonæ comp., ℥ j – ℥ ij.	30	—	60	
	Aquæ, *ad* ℥ iv.....	120			

M. S. Teaspoonful in water, after meals.

Use: Tonic and alterative in eczema and chronic affections.

65. *Mistura ferro-arsenicalis.*

℞	Ferri et ammonii citratis, ʒ j.....	3	88		
	Liquoris potassii arsenitis, ʒ ss – ʒ ij.	1	90—	7	50
	Liquoris potassæ, ʒ j – ʒ ij.....	3	75—	7	50
	Syrupi pruni virginianæ, ℥ j.....	40			
	Vini ferri dulcis (Malaga), *ad* ℥ iv..	120			

M. S. Teaspoonful in water, after meals.

Use: Especially valuable for children as a tonic and alterative.

66. *Mistura arsenici chloridi.*

℞	Liquoris arsenici chloridi, ʒ j – ʒ iv.	3	75—	15	
	Acidi muriatici diluti, ʒ iv.....	15			
	Tincturæ ferri chloridi, ʒ ij – ʒ iv...	7	50—	15	
	Aquæ, *ad* ℥ iv.....	120			

M. S. Teaspoonful in water, through a tube, during or after meals.

Use: Powerful tonic in chronic inflammatory affections.

67. *Mistura hydrargyri et potassii iodidi.*

℞	Hydrarg. chlor. corros., gr. j – gr. ij.		06		12
	Potassii iodidi, ʒ ij – ʒ iv.....	7	75—	23	32
	Ferri et ammonii citratis, ʒ j.....	3	88		
	Tincturæ nucis vomicæ, ʒ ij.....	7	50		
	Tincturæ cinchonæ comp., ℥ ss – ℥ ij	15	—	60	
	Aquæ, *ad* ℥ iv.....	120			

M. S. Teaspoonful in water, after meals.

Use: In syphilitic eruptions and as an alterative.

68. *Mistura acidi nitrici.*

℞	Acidi nitrici fortioris, ʒ j – ʒ iij.....	5	—	15	
	Syrupi zinziberis, ℥ ss.....			20	
	Aquæ, *ad* ℥ iv.....	120			

M. S. Teaspoonful in water, through a tube, after meals.

Use: An alterative tonic in cases exhibiting oxaluria and liver derangement.

69. *Mistura strychniæ et phosphori.*

℞	Strychniæ, gr. i	06	
	Acidi phosphorici diluti, ℥ ss – ℥ j ..	15	— 30
	Syr. calcii lacto-phosphatis, *ad* ℥ iv..	120	

M. S. Teaspoonful in water, after eating.

USE: Powerful nerve tonic in alopecia areata and nerve debility.

70. *Mistura ferri et phosphori.*

℞	Tincturæ ferri chloridi,		
	Acidi phosphorici diluti, āā ℥ j	30	
	Syrupi limonis, ℥ ij	80	

M. S. One-half to one teaspoonful in water, through a tube, after meals.

USE: An iron tonic in nervous cases; strychnine may be added.

PASTÆ

71. *Pasta gelatinæ et zinci.* (Unna, modified.)

℞	Dextrini, ʒ j	3	88
	Gelatinæ albæ, ʒ vj	23	32
	Zinci oxidi, ʒ vj	23	32
	Glycerini, ʒ ix	40	
	Aquæ, ℥ ij	62	20

M. Melt the gelatin in the water, add the glycerin and dextrin: when liquid stir in the zinc. Two to four per cent. of ichthyol may be added when needed.

USE: To be melted with gentle heat and applied with a brush: a protecting covering in eczema.

72. *Pasta gelatinæ et adipis.* (Jamieson.)

℞	Gelatinæ, ʒ ii	7	77
	Zinci oxidi, ℈ iv	5	
	Adipis recentis, ℈ iv	5	
	Glycerini, ℥ j	35	10

M. Heat together over water bath, and add two per cent. of powdered salicylic acid.

USE: Melt and paint on; a protective covering in eczema.

73. *Pasta tragacanthæ.* (Van Harlingen.)

℞	Tragacanthæ,		
	Glycerini, āā ʒ iv	15	55
	Sodii bi-boratis, ʒ ss	1	94
	Aquæ destillatæ, q. s		

M. Ft. pasta molle.

USE: Protective and soothing covering, especially in eczema of the face.

74. *Pasta tragacanthæ et dextrini.* (Bassorin, Elliot.)

℞ Tragacanthæ, ℥ jss 48
Dextrini, ʒ vjss 25
Glycerini, ʒ ij 10
Aquæ, q. s. *ad* ℥ iijss 100

M. et ft. pasta. Various ingredients, resorcin, salicylic acid, aristol, etc., may be incorporated, as also ichthyol and tar in small proportions.

Use: Applied with the finger or a brush, it quickly dries and forms a protective coating in eczema, and may be washed off with water.

75. *Pasta acidi salicylici.* (Lassar.)

℞					
	Pulveris acidi salicylici, gr. x – ʒ ss..		64—	1	94
	Pulveris amyli,				
	Zinci oxidi, āā ʒ ij	7	77		
	Unguenti petrolei (vaselin), ℥ ss–℥ j.	15	55	31	10

M. et ft. pasta.

Use: Soothing and protective in eczema and dermatitis seborrhoica.

76. *Pasta amyli et zinci.* (Ihle.)

℞			
	Pulveris amyli,		
	Zinci oxidi,		
	Lanolini,		
	Unguenti petrolei (vaselin), āā ʒ ij	7	77

M. et ft. pasta.

Use: Soothing and protective; resorcin (two to four per cent.), powdered salicylic acid, or ichthyol may be added as required.

PILULÆ

77. *Pilulæ hydrargyri, colocynthidis, et ipecac.*

℞		
	Pilulæ hydrargyri,	
	Extracti colocynthidis comp., āā gr. x	64
	Pulveris ipecacuanhæ, gr. ij	13

M. et divide in pilulas No. iv.
S. Take one or two at night and on the second night after.

Use: A moderate cathartic in cases exhibiting liver derangement.

78. *Pilulæ ferri et aloes.*

℞			
	Ferri sulphatis exsiccati, ʒ ss	1	94
	Pulveris aloes purificatæ, ℈ j	1	29
	Pulveris aromatici, ʒ j	3	88
	Confectionis rosæ, ℈ j	1	29

M. et divide in pilulas No. xl.
S. Take one or more after each meal, and diminish the dose and its frequency as rapidly as possible.

Use A tonic laxative in habitual constipation.

79. *Pilulæ rhei, sodii, et ipecac.*

℞	Pulveris rhei, Sodii bi-carbonatis, āā 3 ss – 3 j .... Pulveris ipecacuanhæ, gr. x.....	1	94— 64	3	88

M. et divide in pilulas No. xxx. S. Take one after meals.

USE: A mild laxative and corrective in digestive derangement.

80. *Pilulæ ferri et arsenici.*

℞	Liquoris potassii arsenitis, 3 j–ij... Ferri sulphatis exsiccati, 3 j..... Sodii bi-carbonatis, 3 j – 3 ij..... Extracti gentianæ, 3 ss – 3 j	3 3 3 1	75— 88 88— 94—	7 7 3	50 77 88

M. Evaporate and divide into 30 pills. S. Take one after meals.

USE: Alterative and tonic.

81. *Pilulæ acidi arseniosi.* (Asiatic pills.)

℞	Pulveris acidi arseniosi, gr. j..... Pulveris piperis nigri, ʒ j.....			1	065 29

M. et divide in pilulas No. xl. S. One or more with meals.

USE: Especially in psoriasis; the number of pills may be gradually increased until very large doses of arsenic are taken.

82. *Pilulæ zinci phosphidi.*

℞	Zinci phosphidi, Extracti nucis vomicæ, āā gr. x.....				64

M. et divide in pilulas No. xxx. S. Take one every 2 to 4 hours.

USE: Nerve tonic, in zoster, leucoderma, etc.

PULVERES

In preparing dusting powders for external use the greatest caution must be exercised that they are in the finest possible state, and entirely free from gritty particles: those which contain mineral substances should be shaken or stirred before being applied, as otherwise a separation of the ingredients may interfere with their beneficial action. Care must be taken that powders be not allowed to cake

upon the skin or to become worked into a paste, as in the flexures of the joints and elsewhere.

83. *Pulvis antipyreticus.*

℞ Buckwheat flour.

USE: This forms a most agreeable and cooling application, if kept continually applied, in acute erythematous conditions.

84. *Pulvis calaminæ compositus.*

℞	Pulveris calaminæ prepar.,			
	Pulveris oryzæ sativæ, āā ℥ j.....		31	10

M. et ft. pulvis.

USE: As a dusting powder in acute erythematous and vesicular eruptions.

85. *Pulvis magnesii et acidi salicylici.*

℞	Magnesii usti, ʒ v.....		19	43
	Pulveris talci venetii, ℥ ijss.....		77	76
	Acidi salicylici, ʒ ss – ʒ ij	1 94—	3	88
	Balsamii peruviani, gtt. x.....			80

M. et ft. pulvis.

USE: An absorbent and astringent application in acute erythematous conditions and hyperidrosis.

86. *Pulvis magnesii carbonatis.*

℞	Magnesii carbonatis levis,			
	Pulveris lycopodii, āā ℥ ss.....		15	55

M. et ft. pulvis.

USE: As a dusting powder in erythematous eczema.

87. *Pulvis antipruriticus.*

℞	Chloralis hydratis,			
	Camphoræ, āā ʒ j.....		3	88
	Rub together until liquid, and incorporate with			
	Pulveris amyli, ℥ j – ℥ ij		62	20

M. Keep tightly corked in a wide-mouthed bottle.

USE: A powerful antipruritic, to be well rubbed in with the hand.

88. *Pulvis camphoræ et zinci.*

℞	Pulveris camphoræ, ʒ ss – ʒ j	1	94—	3 88
	Zinci oxidi, ʒ iv.....	15	55	
	Pulveris amyli, ℥ j.....	31	10	

M. et ft. pulvis.

USE: As a dusting powder to relieve pruritus.

UNGUENTA

In the preparation of ointments too much care cannot be exercised in reducing to the finest possible state the substances to be incorporated, for more harm than good is often done by having coarse particles in an ointment which is to be applied to an abraded surface. The physician should, therefore, take especial supervision over the preparation of ointments, and should frequently inspect those in use by the patient. It is well to first grind down any mineral ingredient in a mortar, adding a little sweet almond oil, making it into a paste, which is then to be added to the excipient. The greatest care must also be exercised that the material used be perfectly fresh, for the least rancidity of the ointment renders it irritating. The preparations of petroleum, cosmoline and vaseline, meet this requirement, but where protection of the part is desired a more solid substance is needed, and most of the following prescriptions are made with the unguentum aquæ rosæ, U. S. P., a most invaluable aid in the treatment of skin diseases. Lanolin is a valuable addition to many ointments, twenty to thirty per cent., but used alone it is too sticky. Ointments should always be spread on cloth, as on the woolly side of lint, when the surface is raw; in chronic conditions gain is had by rubbing them in. When protection is desired, it is well to have new dress-

ings ready spread with the ointment before the old ones are removed.

89. *Unguentum zinci oxidi.*

℞	Acidi carbolici, gtt. iii – x.....		20		64
	Zinci oxidi, ʒ ss – ʒ j	I	94—	3	88
	Unguenti aquæ rosæ, ℥ j.....	3I	IO		

M. et ft. unguentum.

Use: Soothing and protective; half a drachm to a drachm of tincture of camphor or chloroform may be added.

90. *Unguentum calaminæ et zinci.*

℞	Acidi carbolici, gtt. v – xvj.....		32—	I	03
	Pulveris calaminæ prep., ℈ j – ℈ ij .	I	28—	2	56
	Zinci oxidi, ʒ ss – ʒ j	I	94—	3	88
	Unguenti aquæ rosæ, ℥ j.....	3I	IO		

M. et ft. unguentum.

Use: Soothing and protective. Tincture of camphor, ʒ ss, may replace the carbolic acid.

91. *Unguentum resorcini.*

℞	Resorcini, ℈ i – ʒ i	I	28—	3	88
	Zinci oxidi, ʒ ss.....	I	94		
	Unguenti aquæ rosæ, ℥ j.....	3I	IO		

M. et ft. unguentum.

Use: Slightly stimulating; especially valuable in dermatitis seborrhoica.

92. *Unguentum bismuthi sub-nitratis.*

℞	Bismuthi subnitratis, ʒ ss – ʒ ij	I	94—	7	77
	Unguenti aquæ laurocerasi, ℥ j.....	3I	IO		

M. et ft. unguentum.

Use: Soothing and mildly astringent.

93. *Unguentum ichthyoli.*

℞	Ichthyoli, ʒ ss – ʒ j	I	94	3	88
	Acidi salicylici pulv., gr. x – ʒ ss...		64	I	94
	Zinci oxidi, ʒ ss.....			I	94
	Unguenti aquæ rosæ, ℥ i.....	3I	IO		

M. et ft. unguentum.

Use: Antipruritic and astringent; in weaker form valuable in infantile eczema.

94. *Unguentum acidi tannici.*

℞	Pulveris acidi tannici, ʒ ss		1	94	
	Glyceriti acidi tannici, ʒ ss.....		1	94	
	Unguenti aquæ rosæ, ℥ j.....		31	10	

M. et ft. unguentum.

USE: Astringent; of especial service in eczema of the scalp and ears; one or two per cent. of carbolic acid may be added with advantage, when there is itching.

95. *Unguentum picis et zinci.*

℞	Unguenti picis liquidæ, ʒ j – ʒ iij ...	3	88—	11	66
	Zinci oxidi, ʒ ss – ʒ j	1	94—	3	88
	Unguenti aquæ rosæ, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

USE: Antipruritic and protective; of especial value in infantile eczema.

96. *Unguentum cadini et zinci.*

℞	Olei cadini (*vel* rusci), ʒ ss – ʒ j	1	94—	3	88
	Zinci oxidi, ʒ ss – ʒ j	1	94—	3	88
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. et ft. unguentum.

USE: Antipruritic and mildly astringent.

97. *Unguentum picis et hydrargyri.*

℞	Liquoris picis alkalini, ʒ j – ʒ iij ...	3	88—	11	66
	(See Formula 44.)				
	Unguenti hydrarg. ammon., ʒ ij–ʒ iv	7	77—	15	55
	Unguenti aquæ rosæ, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

USE: Antipruritic and mildly stimulating; of especial value in psoriasis of the scalp.

98. *Unguentum hydrargyri et bismuthi.*

℞	Bismuthi sub-nitratis, ʒ j.....	3	88		
	Unguenti hydrarg. ammon., ʒ j–ʒ iv	3	88—	15	55
	Unguenti aquæ rosæ, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

USE: Astringent and slightly stimulating; naphthalin, ʒ ss, may be added for psoriasis.

99. *Unguentum hydrargyri cum plumbo.* (Startin.)

℞	Plumbi acetatis, Hydrargyri chloridi mitis, āā gr. x.....		64
	Zinci oxidi, Unguenti hydrargyri nitratis, āā ʒj	1	29
	Adipis recentis, Olei palmæ rectificati, āā ℥ ss.....	15	55

M. et ft. unguentum.

Use: Moderately stimulating; much used in England in eczema capitis.

100. *Unguentum hydrargyri et bismuthi. No. 2.*

℞	Hydrargyri biniodidi, gr. ij–gr. vj..		12—		36
	Bismuthi sub-nitratis, ʒ ss – ʒ j	1	94—	3	88
	Unguenti hydrarg. ammon., ʒ ij – ʒ iv	3	88—	7	77
	Unguenti petrolati (vaselin), *ad* ℥ j.	120			

M. et ft. unguentum.

Use: Stimulating and absorptive, in psoriasis.

101. *Unguentum hydrargyri oxidi rubri.*

℞	Unguenti hydrarg. oxidi rub., ʒ j – ʒ iij.....	3	88—	11	66
	Unguenti aquæ rosæ, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

Use: Mildly stimulating in chronic eczema and hordeolum.

102. *Unguentum hydrargyri et iodinii.*

℞	Unguenti hydrargyri, Unguenti iodinii comp., Unguenti diachyli (Formula 103), āā ℥ ss....	15	55

Misce intime.

Use: Powerfully stimulant; to be rubbed well into the skin over syphilitic indurations and bone lesions, and scleroderma.

103. *Unguentum diachyli.* (Hebra's diachylon ointment.)

℞	Olei olivarum optimi, ℥ xv.....	466	54
	Plumbi oxidi, ℥ iij + ʒ vj.....	116	62
	Olei lavandulæ, ʒ ij.....	6	75

M. Add the oil to two pounds of water and heat it with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold and the lavender then added. In winter a slightly larger quantity of oil is required to make a soft ointment.

Use: Astringent and soothing, but irritating to some skins in acute conditions.

104. *Unguentum diachyli modificatum.*

℞	Emplastri diachyli,				
	Vaselin, āā ℥ j.....	31	10		

M. Dissolve with heat, and stir until cold.

USE: Astringent and soothing in sub-acute eczema, but less valuable than the preceding.

105. *Unguentum plumbi et stramonii.*

℞	Liquoris plumbi sub-acetatis diluti,				
	℥ j.....	3	75		
	Pulveris opii, gr. x-xx.....		64—	1	28
	Acidi tannici, ℥ ss.....	1	94		
	Unguenti stramonii, ℥ j.....	31	10		

M. et ft. unguentum.

USE: Astringent and soothing; of especial value in external hemorrhoids.

106. *Unguentum acidi chrysophanici.*

℞	Acidi chrysophanici, ℥ ss – ℥ ij	1	94—	7	77
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. Dissolve with heat and stir until cold.

USE: Powerfully stimulating and irritant to many skins; of especial value in psoriasis and ringworm.

107. *Unguentum acidi pyrogallici.*

℞	Acidi pyrogallici, ℈ j – ℥ ij.....	1	29—	7	75
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. Dissolve with heat and stir until cold.

USE: Moderately stimulating in weakest, caustic in greatest strength; of especial value in psoriasis and ringworm.

108. *Unguentum styracis et sulphuris.*

℞	Styracis liquidis, ℥ ij.....	10			
	Unguenti sulphuris, ℥ ij – ℥ iv	7	77—	15	55
	Unguenti petrolati, *ad* ℥ j..... ...	31	10		

M. et ft. unguentum.

USE: Antiparasitic and moderately stimulating, for scabies.

109. *Unguentum sulphuris compositum.* (Wilkinson, modified.)

℞	Sulphuris sublimati,				
	Olei cadini, āā ℥ ij.....	7	77		
	Cretæ preparatæ, ℥ ijss.....	9	71		
	Saponis viridis,				
	Adipis, āā ℥ j.....	31	10		

M. et ft. unguentum.

USE: A rather stimulating remedy for scabies.

110. *Unguentum sulphuris hypochloridi.*

℞	Sulphuris hypochloridi, 3 j – 3 ij ...	3	88—	7	77
	Extracti rumicis rad., 3 ij – 3 iv....	7	77—	15	55
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. et ft. unguentum.

Use: Stimulating and absorbent, in acne indurata.

111. *Unguentum acidi carbolici.*

℞	Acidi carbolici, ℈ j – 3 ij	1	29—	7	77
	Glyceriti amyli (Formula 25)				
	(*vel* unguenti petrolei), ℥ iv.....	124	41		

M. et ft. unguentum.

Use: Antipruritic, to be used freely to the body, especially after alkaline baths. Menthol, two to five per cent., may be added to increase the antipruritic effect.

112. *Unguentum lanolini compositum.*

℞	Glycerini, 3 ss – 3 j.....	2	50—	5	
	Lanolini, 3 ij.....			7	77
	Unguenti petrolati (vaselin), 3 vj....			23	32

M. et ft. unguentum.

Use: As an emollient to soften the skin in steatosis, xeroderma, etc., and for inunctions after baths; also as a basis for ointments.

113. *Unguentum antipruriticum.*

℞	Gummi camphoræ,				
	Chloralis hydratis, āā 3 j – 3 ij	3	88—	7	77
	Rub together until a liquid results, then add slowly, with friction,				
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. et ft. unguentum.

Use: Powerfully antipruritic; if applied where the surface is abraded it causes burning and irritation.

114. *Unguentum picis et belladonnæ.*

℞	Unguenti picis liquidæ, 3 vj.....	23	32
	Unguenti belladonnæ, 3 iv.....	15	55
	Tincturæ aconiti, 3 j.....	3	75
	Zinci oxidi, 3 ij.....	7	77
	Unguenti aquæ rosæ, 3 vj.....	23	32

M. et ft. unguentum.

Use: Powerfully antipruritic; of especial service in pruritus and eczema of the anus and vulva.

115. *Unguentum ergotæ compositum.*

℞	Acidi carbolici, gr. x – gr. xv.....			68—	1 02
	Extracti ergotæ fluidi, ʒ j – ʒ jss....	3		88—	5 32
	Pulveris amyli,				
	Zinci oxidi, āā ʒ ij.....	7		77	
	Unguenti aquæ rosæ, ℥ j.....	31		10	

M. et ft. unguentum.

USE: To be spread thickly on absorbent cotton, and kept applied by adhesive plaster, to boils and carbuncles.

116. *Unguentum resorcini et sulphuris.*

℞	Acidi carbolici, gr. v.....		32
	Resorcini, ℈ j.....	1	29
	Sulphuris precipitati, ʒ ss.....	1	98
	Lanolini, ʒ ij.....	7	77
	Albolene, ʒ vj.....	23	32

M. et ft. unguentum.

USE: In dermatitis seborrhoica (seborrhoic eczema).

117. *Collodium medicatum.*

℞	Extracti cannabis indicæ, gr. x.....		64
	Pulveris acidi salicylici, ʒ ss.....	1	94
	Collodii flexile, ℥ j.....	31	10

M. et ft. mistura.

USE: Paint over hard corns; peel off old coating before reapplying.

118. *Solutio hydrargyri.*

℞	Hydrargyri chloridi corrosivi, gr. iv.....		25
	Glycerini, ʒ j.....	3	88
	Aquæ destillatæ, ʒ vij.....	27	21

M.

USE: For hypodermic injection in syphilis; twelve drops contain one tenth of a grain of mercury.

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